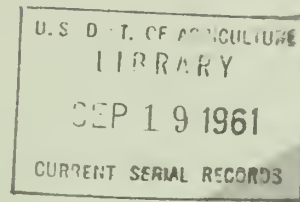


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New Methods and Tools for Improving Agricultural Marketing

A Report of the National
Marketing Service Workshop
at Biloxi, Mississippi
November 15, 16, and 17, 1960
AMS-448

PREFACE

The material herein constitutes the proceedings of the annual marketing service workshop held at Biloxi, Miss., in November 1960 by State departments of agriculture in cooperation with the Liaison Office, Agricultural Marketing Service, U. S. Department of Agriculture. The proceedings have been printed annually as a working tool for the guidance of marketing service workers in the States taking part in the matching fund program.

In 1960, 40 States were cooperating in the matching fund marketing service program, and nearly all of them were represented at the workshop. Activities carried on by the States under the program, marketing service problems encountered and anticipated, and possible solutions for these problems were discussed in general sessions and in meetings of special work groups dealing with specific commodities or groups of commodities and specific functions in marketing. This publication contains condensed versions of the speeches and of the conclusions reached by the work groups.

The theme for the 1960 workshop was New Methods and Tools for Improving Agricultural Marketing.

Washington, D. C.

July 1961

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1/ Copies of these talks were not available at the time of publication.

NEW METHODS AND TOOLS FOR IMPROVING
AGRICULTURAL MARKETING

A report of the National Marketing Service Workshop
at Biloxi, Mississippi
November 15, 16, and 17, 1960

PLANS FOR THE WORKSHOP

William C. Crow, Liaison Officer
Matching Fund Program
State Departments of Agriculture

In this period of rapid change in agricultural production and marketing, and the emergence of marketing as a major agricultural problem, it is most appropriate that we devote three days to a study of "New Methods and Tools for Improving Agricultural Marketing." Your program committee, consisting of representatives of the States assisted by the Liaison Office, has given a great deal of thought to developing a program of practical value in improving marketing service work done in the States. On the program committee are Phillip Alampi, New Jersey; George H. Chick, Maine; Clifton B. Cox, Indiana; Spencer G. Duncan, New York; Marvin A. Faller, Louisiana; Jack Gilchrist, Georgia; John Mahoney, Maryland; Donald E. Wilkinson, Wisconsin; John A. Winfield, North Carolina; and James E. Youngblood, South Carolina. This committee provides representation for the National Association of State Departments of Agriculture, the National Association of Marketing Officials, a cross section of State departments of agriculture and land-grant colleges, and the Agricultural Marketing Service. Hence, it was able to give a broad approach to the marketing problems we face and possible solutions to them.

The plan for the Workshop provides for opening each half day with a general session at which a talk on a subject of general interest will be made. We are most fortunate in having as our keynote speaker the Honorable Jamie L. Whitten, who has rendered outstanding service over a period of years as Chairman of the Agriculture Subcommittee of the Committee on Appropriations of the House of Representatives. In this capacity he has devoted much of his time to a study of agricultural problems, and hence is in an excellent position to point out the contribution marketing can make to a solution of these problems. This afternoon we shall hear from Mr. Morris Lewis the views of a food retailer as to what marketing service people can do to improve marketing. A general session this evening at eight will be devoted to presenting ideas with visual aids. Tomorrow Dr. Clifton Cox will discuss the possibilities of group action in solving marketing problems, and Roy Lennartson, Deputy Administrator of the Agricultural Marketing Service, will suggest some new marketing programs for a changing agriculture. Thursday morning Mrs. Edythe Robertson will discuss one of our most rapidly growing and often overlooked markets for food--the public

feeding institutions. At the final general session on Thursday afternoon the work group leaders will give their reports.

At the conclusion of each general session the participants in the workshop will divide themselves into eight groups. Group A will devote three days to considering the administration of marketing programs. This group will be of particular interest to Commissioners of Agriculture and heads of marketing divisions. Promotion of agricultural products and marketing programs will be the topic of Group B. This group is concerned largely with how the public can be induced to make desirable changes in marketing. Other work groups have been set up by commodities--dairy products, fruits and vegetables, grain, livestock, poultry and eggs. The topics for each of these groups for each day are shown in the program, and were selected because of their current importance. Work group H on special topics may be of particular interest to a number of people. This group will study marketing forest products today. Tomorrow it will consider roadside markets, and Thursday will be devoted to improving the transportation of agricultural products. At the meeting on Thursday we are fortunate in having as participants those transportation specialists who constitute the Transportation Committee of the Southern States. Persons concerned with transportation and those from States planning to begin work in this field will find this session helpful.

Each work group session will be opened by one or more talks by persons well qualified to discuss the subject. Discussion will follow, and the day will close with the drawing of conclusions.

It has been pointed out that nowhere else in this country is it possible to learn as much about agricultural marketing in three days as at this workshop. To get the most out of it, the main essential is to work. Listen carefully to the speeches at the general sessions and work groups. Enter into the discussions by asking questions, giving your views, and helping the chairman keep the discussion on the subject. Be on time at all the meetings. If you do these things, you will learn a great deal and be able to do a better job solving marketing problems in your State.

Summaries of all speeches and conclusions of the work groups will be published in the proceedings, a copy of which will be mailed to each registered person. If you have not already done so, please register as soon as possible.

THE ROLE OF MARKETING IN SOLVING AGRICULTURAL PROBLEMS

The Honorable Jamie L. Whitten,
House of Representatives,
U. S. Congress

My friends, I have reviewed the activities of marketing through the years. I was active in passing the Agricultural Marketing Act of 1946 and prepared the amendments which added funds for marketing research and service work. I was there when the department, in trying to get going, almost made marketing specialists out of elevator operators, since in the early years of this program there just weren't any marketing specialists; so I feel I have some knowledge of the detailed operations of the marketing aspects of the Department of Agriculture and the work of the State Commissioners of Agriculture.

You have done a good job. However, you are somewhat like a friend who had been in Congress about 18 years. Last year he had an opponent who said of my Congressman friend that he had been in Congress 18 years and that during that time the national debt had grown astronomically, international affairs had become worse, and that every year the Congressman has stayed there things had gotten worse. He said the debt gets bigger, the integration problem has grown up, and the courts get more highhanded, and that every year his Congressman opponent had been there it has been like that. Of course, my colleague was able to show that such developments were in spite of him and the situation would have been worse except for him.

Now in spite of the fine marketing work you folks have done you could be attacked in the same way. While in the last 10 years you have done a marvelous job, in spite of everything you have done farm income has gone down from \$14 billion to about \$10.5 billion; and in spite of all the work you have done in marketing the number of farmers has dropped from 5.6 million down to 4.6 million. In spite of your efforts to help, it takes twice as much capital investment to farm now as it did 10 years ago. Well, with all your work the middlemen get 62 cents instead of 50 cents and the farmer is now getting only 38 cents out of the consumer dollar, where he got 50 cents 10 years ago.

Now what does that mean? It doesn't mean that you haven't done a good job--in fact if it hadn't been for you, goodness knows how bad off we would be.

What I am trying to tell you is that it is evident that however good marketing research and service is, it alone cannot solve our agricultural problems. In recent years many people have said all we need is more funds for research and marketing. I have jotted down here just a few of the increases Congress has made in these funds.

Since 1950, marketing research funds increased 106 percent, payments to States for cooperative marketing work have been increased by 151 percent, funds for school lunch have increased 86 percent. Now I know that the dollar has been decreasing in value and this and that and the other, but the point I am making is that those folks who say research and marketing is the answer to every problem are ignoring much of the problem.

Now, don't think I disapprove of research and marketing work. I have been one of the key spokesmen for the marketing research and other marketing work, and for the total research for the department. But I have never seen any research results which did not cause the farmer to invest a whole lot of money before he could have their benefits. This increases his cash investment, which increases his risk. What I say is that we shouldn't let others claim that this very valuable work is a key of sufficient size to solve the problem. It can only help.

It is true that in this country for many, many years we have had protection for industry and labor; and agriculture settled for what it could get. In the process we wore out about half of a great country. Our farmers did it, moving from one place to another and depleting the soil as they went.

Now I am a great believer in private enterprise. Most of you have heard me use this illustration and I will use it again, as I know of none better.

Someone once said that all anyone wants is a fair advantage. The best way to have an advantage declared fair is to pass a law saying it is fair; and that is the history of every Congress from the start--various groups trying to declare by law certain things that they think are fair to be "fair." Thus it was that industry first obtained protective tariffs, thus it was we first passed a law to let labor organize, then passed minimum wage laws, declaring by law that these things are right and fair, but as long as you pass laws giving this segment and that segment a bigger and bigger share of the overall consumer dollar, it can't help but mean a less and less share for the fellow that is out from under.

Now as I told you earlier, farm income is down from \$14 billion to about \$10.5 billion per year. Now you read in the paper, "What difference does that make?" We have so many less farmers--it is 4.6 now as against 5.6 about 8 or 10 years ago--that the reduction won't hurt. But, my friends, for every farmer you let go, the farmer remaining has had to increase greatly his cash investment, so now it takes twice as much money to farm.

I started off today by saying I know you have done a good job in the particular field you are discussing here. Except for that good job, no telling how much worse off we would be. But I want to point out to you, as I see it, what is an even bigger marketing job today. Marketing is selling, and however important this detailed discussion you have here, Dr. Trelogan, Bill Crow, and all these commissioners will tell you there is a job ten times bigger than that which we face today. We must sell the American people on the necessity to protect their very source of food and fiber, which is still a necessity just as it was thousands of years ago.

Recently I spoke to the National Agricultural Chemical Association at their annual meeting in California, where I attempted to point out many of the dangers the Nation faces today with regard to our food supply.

I would like to repeat here the main theme of my talk. I repeat: "It takes so few of us to produce food, clothing and shelter for the rest of us, that the rest of us provide the highest standard of living for all of us."

In that short statement lies the secret of our wonderful standard of living. Also, in those few words, "It takes so few of us," is found the underlying cause of most of our present farm problems and an invitation for even greater ones for the future.

Under our competitive and political system, the very fact that so few now feed and clothe the Nation means less and less voice in government for agriculture. As their numbers have become fewer, the farmers' influence in public affairs, in the political arena, has become less and less.

We all believe in free enterprise, but if you analyze the situation you soon find that our free enterprise has been free only under the laws as written by the Congress and the State legislatures. There has been competition as to how these laws were written.

Early in our history, protective tariffs were written into laws; and a good argument could be made for such protection, especially in the early days. Many protections against competition have been granted, and rates reflecting a fair return on investment for utilities are provided by laws. There are many others.

About 40 years ago Labor was given the right to organize and to strike. Laws have been passed requiring the payment of minimum wages.

It was only about 25 years ago, after a drastic break in agricultural income had led off a depression, that agriculture began to receive somewhat equal treatment in law. Farm support prices were tied, by law, to the cost of what the farmer bought. Many of these laws have since been repealed or modified. Agriculture today operates in an economy where advantages to Labor and Industry are provided by law; and for all practical purposes such laws are not going to be repealed. Only recently the President of the United States asked for the passage of a law requiring a further increase in minimum wages; and as of now the President and Congressional leaders are pushing for such legislation, the only point of difference being the hourly rate--\$1.15 or \$1.25. Whatever the merits, it can only have the effect of further increasing Labor's share of the income dollar and of raising farm costs at a time when farm costs are already going up and farm prices are going down--largely as a result of laws increasing compulsory minimum wages and reducing the minimum price support required for agricultural commodities.

Since 1950, the minimum wage required to be paid Labor has been increased by law from 75 cents to \$1; and the average hourly earnings of factory workers, by reason of the right in law to organize and strike, has increased from \$1.46 to \$2.29 during this period. During this same period the Congress passed, and the President signed, laws reducing by an average of 20 percent minimum prices which must be paid for agricultural commodities. How could this happen? It happened because of the increased influence of Labor and the declining influence of farmers in the Congress and in the government; and, I may say, in the elections which preceded such laws.

Since 1950, labor and industry's take of the consumer dollar has increased from 50 cents to 62 cents, an increase of 25 percent; and the farmers' share, of course, has dropped from 50 cents to 38 cents, a decrease of the same 25 percent. As this situation developed, the farmer, in an effort to offset higher cost and lower price, increased his production--thus adding to our burdensome surplus for which the Treasury paid out billions of dollars, about 50 percent to the farmer and 50 percent to warehousemen, carriers, and middlemen.

Declining Influence of Farmers

With the endless competition for the consumer dollar between Labor, Industry and Agriculture; with the endless search by newspapers, periodicals, magazines, radio and television for subscribers, advertisers and public following; and with the competition for votes by candidates for public office, it is easy to understand that our political system leads to an appeal to the 88 percent of our people who are nonfarmers, rather than the 12 percent who live on the farm.

Twenty-five years ago farmers had a substantial share of political power, as evidenced by the farm bloc in the Congress. Today, while the farm vote may still be crucial in practically every State in the Union in electing U. S. Senators, it is doubtful that the farm vote is significant in over 25 percent of the districts in the U. S. House of Representatives. In our legislative bodies perhaps 40 percent of the Members have a farm background, and thus some understanding of the Nation's dependence upon a healthy agriculture. In the next generation, however, since only 12 percent of our people are now on farms, there will be very few legislators indeed who have any knowledge or understanding of agriculture.

Apparently experts at making an appeal to the 88 percent, the nonfarm group, are to be found in every nook and cranny of government. It is no wonder the public no longer understands there must be controls on storable commodities, where one year's overproduction may be in the way of the next year's crops, if there are to be price supports. No wonder most of the American people see no distinction between that situation and that of perishable commodities, where overproduction one year may not affect the next.

While the farmers no longer have the numbers to offer the percentage of votes so essential under our system to preserve "parity of influence" in the Congress, I would point out to those who believe that, since there are seven times more nonfarmers than farmers, the potential market follows such population statistics, that Agriculture still offers perhaps the greatest single market for industrial goods.

Agriculture uses more finished steel in a year than is used for a year's output of passenger cars. It uses more petroleum products than any other industry. It uses more rubber each year than is required to produce tires for 6 million automobiles. It is one of the Nation's largest users of electrical power. Its inventory of machinery alone exceeds the assets of the American steel industry and is five times that of the automobile industry.

Facts Frequently Ignored

As I have said before, there are fewer people on the farm, but capital required to farm has increased as rapidly as the number of people farming has been reduced. The number of farms has dropped from 5.6 million in 1950 to 4.6 million in 1959. The investment of capital required per farm has increased from \$16,979 in 1950 to \$33,455 in 1959.

More capital is required per farmer or farm worker than for his counterpart in industry. The average investment per farm worker is \$20,700 as compared to \$17,800 per factory worker.

As the amount of capital required has doubled, the cost of capital, through interest rates, has increased from approximately 3 percent to approximately 6 percent. As the amount of capital invested has increased, the risk has also increased.

The more capital the farmer has to invest, the more gross income the farmer must have to assure a fair return. Further, capital must be obtained in competition with others who require such capital, which makes it more costly to the farmer than the labor it replaces.

Someone has said that to farm today on a scale which might provide a comparable livelihood to others requires not only enough capital to start a bank but enough nerve to rob a bank; and unless the farmer is lucky, he is apt to find he did the latter without intending to.

For the future, the problem of reduced influence seems likely to become worse rather than better. Interest in and understanding of agricultural problems is decreasing as our rural population declines and our young people turn to other occupations and ways of life. Last year, of 411,437 students attending those colleges and universities teaching agriculture, only 31,722 were enrolled in the agriculture departments.

Agriculture today is the one place where a young man cannot enter into business on credit and ever hope to pay out. With only 12 people out of 100 now on the farm, as I have pointed out, there will be few legislators in the next generation who have any knowledge of agriculture; and the voice of Agriculture in the Halls of the Congress will indeed be weak.

Some Facts We Must Remember

Food, clothing and shelter are as much basic necessities for life as ever. Any nation looking to the future must protect the source of such basic necessities, the natural resources. Such resources can be protected for the present and future only as those who presently have title to them receive a reasonable return above costs.

Wornout countries of today got that way because too little of what was taken out of the soil was put back. There, too, consumers demanded food and fiber at less than the cost of production.

For a sound and steady source of food there must be a prosperous agriculture; for a prosperous agriculture there must be a financial return adequate to cover production costs, including labor expended, and a proper return for capital invested and risk incurred.

Today, in my opinion, the greatest threat to our standard of living is not the cost of defense, nor attack from abroad, but the ill-advised and unwise acts at home which build up in the public mind in prejudice against agricultural interests generally, usually to obtain preferment by the 88 percent, perhaps for public office, or perhaps to obtain their support by having further advantages for Labor or Industry declared fair by law.

It has been said that almost anyone or any nation can stand adversity--but that it takes the best, individually, or as a nation to stand prosperity. Truly, it appears that what is happening today tends to support such thought.

Farm Income Should Come from the Marketplace

Agriculture should get its return, as do Industry and Labor, from the consumer as a part of the retail price. Existing farm laws intended that.

Where labor and industry pass on their increased take, under law, to the consumer as part of the retail price, more and more in recent years the farmer

(Agriculture) has been forced to look to the Federal Government for a larger and larger part of a smaller and smaller net income.

The share of the consumer dollar which formerly went to the farmer and is now going to these other groups has required the farmer to look to the Federal Treasury. Significantly the amount paid out of the Treasury to Agriculture is approximately the exact amount that, through law, other groups have increased their share of the consumer dollar. Thus, it may be argued that the costs to the Government of what the farmer receives from the Treasury is really a replacement of income resulting from changes in the law increasing the share of the national income for other groups.

This transfer of a part of the farmers' income from the marketplace to the Treasury does not save money for the consumers, for the taxpayers are the consumers and the consumers are the taxpayers. By paying from the Treasury rather than as part of the retail price, the consumer is merely making his payment as a taxpayer rather than as a consumer.

Should this 12 percent of the population, our farmers, fail to receive a fair return from the marketplace or from the Treasury, not only could it lead to depression but it could also mean we would be maintaining our standard of living by drawing on the natural resources of the country, all in order that the consumer may get food and fiber below the cost of production. This, in my judgment, is a major reason for the depleted condition of China and India and other wornout countries of the world.

Agriculture Faces Additional Problem

Today, because of declining numbers, not only agriculture but the entire Nation is being threatened on another front. This threat has come about largely through lack of knowledge as to just how much we are all dependent upon chemicals for our supply of the cheapest, finest, most plentiful, most nutritious food of the greatest variety that any nation ever had.

It should be recognized that many chemicals are necessary in order to protect the public health. Failure to use pesticides could result in the production of foodstuffs far more harmful to human health than the relatively insignificant amount which has been condemned because of misuse by only a handful of growers. Today, pesticides must be used by farmers to produce the high quality and low cost foods which the consumers of the United States demand. Except for the use of sprays and dusts, the cost of living would increase substantially because of damage to crops from pests and disease.

The development of more effective pesticides is one of the reasons why only 12 percent of the people in this country are able to feed the other 88 percent, leaving that 88 percent free to produce other things--a situation which has never before existed in the history of the world.

Today we see groups making further efforts to curry favor with the 88 percent nonfarmers. It is becoming popular to advocate a showing of zero tolerance on anything used in producing, handling, or protecting foods. I repeat, protection of public health is vital. We must protect our health. However, to insist upon any such thing as zero tolerance, would rule out the

air we breathe and even the water we drink. Actually to follow any such policy would greatly endanger all of us, as a result of the contaminated, scarce, and poor quality food which would be available under such a policy.

When I arrived at San Diego to speak to the Agricultural Chemical Association the leading newspaper in San Diego County had two men to meet my plane. They spent 45 minutes interviewing me because I was advertised as chairman of the Agricultural Appropriations Committee, having served in that capacity for 10 years, reviewing all agriculture programs, and so forth. So for 45 minutes they interviewed me as to the purpose of my speech; then as they got ready to leave, one of them said, "Congressman, I notice you are on the Defense Appropriations Committee, and we started to send up another rocket missile today and it failed." I said, "It is just like us--we advertise every failure to the world, though it looks like Russia doesn't say anything until they have a success."

Next day the leading daily paper of San Diego came out with my picture and the headline--CONGRESSMAN SAYS OUR POLICY OF ADVERTISING OUR FAILURES IS TERRIBLE--and went on with a long writeup, mentioning at the bottom that I was out there to speak to an agricultural group.

In my speech to the NACA convention I pointed out what had happened, to demonstrate that the local press did not care to write for the 12 percent of the population who are farmers. The evening paper representative didn't want his paper to be like that and worked very hard on a news story. He was very apologetic to me. I said, "I am not complaining about too little attention to me. I have received a wire from the San Diego Chamber of Commerce wanting me to visit the defense facilities out here, because I am on the Defense Appropriations Committee. They offered me the keys to the city. So I can get attention. But it merely means that the farm problem has no reader interest."

The reporter's paper came out the next day. It had not only killed his farm story entirely, but had an editorial complaining that the government was paying out millions and millions of dollars to farmers and San Diego County wasn't getting its fair share.

This appeal to the 88 percent of our population, at the expense of the 12 percent is serious--and it is serious because involved in it is radio, television, and newspaper publicity. It is awfully hard to get them to write those things that appeal to the 12 percent. You and I know that the 12 percent, due to the nature of farming, constitutes by far the biggest single market in the U. S.--gasoline, cars and trucks, and everything else--but you sell a paper to an individual, you don't sell it to a tractor.

If you go to the Far and Middle East where they don't have the many aids to agriculture we have, you will find that in those areas it takes a bigger and bigger percentage of the people to provide basic necessities. This Nation's economy and standard of living are directly tied to the fact that 12 percent free the 88 percent to provide the thousand and one things which cause us to have our standard of living.

Check our standard of living with that of the nations of the world and it will demonstrate to you that almost invariably their standard of living will compare with ours in direct proportion to how many of their people it takes to

provide the basic necessities as compared with ours. If it takes twice as many as it does of us, they have about half our standard of living, and so it goes. And when you get into those countries where it takes about 80 percent of the people digging and scratching in the soil merely to provide food and clothing, they haven't any standard of living worthy of the name.

We must get these facts to the American people to protect them from themselves. After all, if the food supply ever becomes short, more and more people will be required to produce food, and more and more of the consumer income will be required to buy food, leaving fewer people to produce, and less and less money to buy automobiles, air conditioners, television sets and the million and one gadgets which are luxuries to much of the world but are accepted in our country as virtual necessities today.

Public Health Must Be Protected

As I pointed out in my California speech: "In the interest of the public health we must see to it that all the developments and findings applied today by the users of research results are not used even by a few to make a ready dollar, regardless of consequences. By the same token we must not permit the overzealous or politically ambitious, in efforts to curry favor with the 88 percent of our people who are nonfarmers, to destroy or dry up the safest, the most nutritious, the cheapest, and the widest variety of the most plentiful supply of the best food that the people of any nation ever enjoyed throughout history.

"In protecting the public health of today we must not permit anyone to endanger the public health of the future by prejudicing public opinion against the very means which makes our ample supplies of wholesome and nutritious food available. We must not permit anyone to lead the consumer to destroy his own golden goose."

I say again there are lots and lots of needs in agriculture. These problems which I have pointed out are not going to be corrected offhand. I know we are all mixed up in our viewpoints to a great degree. You are going to have to continue to do everything you can to prevent waste, to improve transportation, to decrease spoilage. We are going to have to do everything we can in marketing because as I pointed out, in spite of the wonderful job you have done, the situation gets tighter and tighter, and it would be twice as bad if you hadn't come up with the improvements which you have.

But here again is what I would leave with you. In Agriculture our main job is to determine and see that the producer produces what is needed and desired. Equally important, we need to see that the consumer gets what he needs and desires; and your main job is to get it from one to the other as economically as possible. May I say, you have your hands full when Congress upsets the apple cart with shifting laws, declaring advantages fair. But behind it all, we all need to take upon ourselves the responsibility of letting the American people know that they are playing with their own welfare when they attack the 12 percent which has done such a marvelous job freeing 88 percent to provide our wonderful standard of living.

Insofar as your place in the sun, in the Congress and elsewhere, the job that the State commissioners have in the sun will be determined largely by how well you are able to see something that you can do better and sell the folks that deal with it that you can do the job better. That is the starting point. And I agree with you that many, many things can best be done in the State, but don't write me and say "Cut me in on it." Right here start off as you would start off making a case for anything else. This case is there to be made--many, many things can be done here.

I want you to remember agriculture makes our high standard of living possible. We must not let the farmer become dependent upon direct payments from the Treasury. The farmer alone shouldn't have to look to the Treasury. In the first place, if he did, he wouldn't get a fair return. Competition in Congress, where 88 percent of the people are represented by Congressmen who don't have the agricultural viewpoint, is too strong. If you had to have a farm program where you had to look for payments from the Treasury, they would not be forthcoming. It doesn't make any difference how hard I would try to get such funds, or your agricultural members might try, we just wouldn't get results.

Secondly, why should agriculture have to look to the Treasury when Labor and Industry pass their "take" of the consumer dollar on as a part of the retail price.

Many of you have heard this illustration. I like to use it for it is a true story. Many people say, "Let the farmer sell for what he can get; let him cut down marketing costs; and let him through research learn to do all this, that, and the other; let the farmer get what he can get while in the same breath they ask for increased wages for labor and increased profits for industry." This reminds me of a story which I like to tell.

I grew up in a little rural community about 15 miles from the railroad. There was a boy on my father's farm named Doc Scallions. This was back in the days when a country boy who went to town and heard a lawyer's speech in the court room, or a speech by a candidate for governor, could go home and for weeks or months repeat practically verbatim every word he heard. This was really a country boy, this Doc Scallions. He served in World War I and when he came back he told this story.

He said when he was called up for military service in our little county seat town before the war they had a lawyer, Mr. John, who made a speech to him and the other young men who were going off to World War I to fight, and Mr. John said, "Young men, hold your heads high, your shoulders up, and your chest out. You go forth to fight for your hearthsides and your loved ones, you follow in the footsteps of Washington, Lee, and Jackson. Do your duty and when you return we will pay you homage." Doc said he had held his chest out, his head up, and went off to war. In a short time he was in training camp in Louisiana, and about 30 days after that he was in France and in the Battle of the Marne. Scared to death, with shells bursting all around, and trying to bolster his courage, he tried to recall the words of Mr. John, "Hold your head high, your shoulders up, you're following in the footsteps of Washington, Lee, and Jackson." And then Doc said, it dawned on him that Mr. John--"He's not here."

Now when those catering to the 88 percent who get their profits from laws that Congress has passed say, "Let the farmer get what's left of the consumer's dollar, and in effect ask the farmer to go to the Battle of the Marne alone, for the sake of all of us, the farmer must say, 'Mr. John, repeal all these other laws and we can take it. Come go to the Battle of the Marne with us.'"

THE RETAILER LOOKS AT MARKETING SERVICE PROGRAMS

Morris Lewis, Jr., President
The Lewis Grocer Company-Sunflower Food Stores

My company is primarily a wholesale operation sponsoring a voluntary group of stores throughout Mississippi, southeastern Arkansas, and eastern Louisiana. We have been in business 65 years and have evolved from an old line wholesaler to a modern cost-plus operator serving 400 retail markets. We sponsor a voluntary group of stores and also own and operate 11 of them ourselves; therefore, in that sense, we are also a retailer.

Six years ago we requested the Agricultural Marketing Service to study our warehousing problem in Mississippi. At that time we were operating from a 2-story warehouse and moving food supplies through it at the rate of 0.67 of a ton per man-hour. As a result of the study and recommendations, we built a new modern 1-story warehouse and improved our efficiency to an average at this time of 1.75 tons per man-hour.

At another time, people from the U. S. Department of Agriculture worked with us on our data processing procedures and helped us institute economies. In 1960, another group from the Department made a detailed study of our fresh produce operation (procurement, warehousing, delivery, and retail problems). We are now making improvements in our produce operation as a result of the study.

I feel indebted to the U. S. Department of Agriculture for the splendid cooperation it has given my company in helping us improve our operation and move food supplies more efficiently from farmers, processors, and manufacturers to the consumer.

First, let us look at a few of the problems that have a direct relationship with your interests. The foremost concern, of course, is the problem of ever-increasing costs. Any sensible retailer will be quick to recognize, and to endorse, an economy that generates the highest standard of living in the world today. He still remembers the 60-hour work weeks, and the \$8 to \$12 pay days of the early 1930's. He remembers, and he doesn't want ever to see times like that again, so he expects and accepts the role that higher costs play in our burgeoning economy. But, a supermarket operator today must think in terms of pennies, even though his sales volume may reach into millions of dollars annually. This incredible fact results from extremely stiff competition at the retail level, expansion of new units into areas already saturated with stores, increased cost of supplies and equipment, and higher wage schedules--to name a few of the major factors involved.

What kind of a job has the retailer done so far? What has been his effect on the costs of food retailing? Unquestionably, the efficiencies instituted

and practiced by the supermarkets have substantially reduced the cost of retail food distribution. The Super Market Institute tells us that the typical supermarket generates a gross profit of about 18 percent. This compares with a gross profit of over 25 percent before the advent of supermarket efficiency. It is well to note that the 18 percent figure includes general merchandise lines such as soft goods, health and beauty aids, and others, which carry a gross profit of over 30 percent on approximately 5 percent of total sales. Thus, it may be easily seen that the gross profit on food and groceries alone is substantially less than the 18 percent generated on the overall operation. With a net profit after taxes of about 1 percent to sales, and the lowest gross profit of any retail line, it is easy to see why food retailers must be continually alert to new and more efficient ways by which to reduce cost. While food retailers cannot, of course, take sole credit for the efficiencies of food distribution, a few figures might reflect their contribution to this end.

During the prewar period of 1935-1939, consumers on the average spent 23 percent of their disposable income on foods. The same quantity and types of foods would have cost the consumer only 16 percent of his 1958 disposable income. The fact is, however, the consumer actually spent 22 percent of his 1958 disposable income for food because he ate more and better foods.

Unquestionably, the food retailers with their modern efficiencies have naturally reduced the cost of food. According to the Consumer Price Index, published by the Bureau of Labor Statistics, the price of food bought in grocery stores last year dropped 2.7 percent below the prices of 1958. During the same period, the index for all consumer goods and services climbed 0.7 percent. Since the BLS Index measures only the cost of a market basket of fixed commodities, the consumer can "beat the index" and buy her food even more economically by shopping around and buying those foods which are in plentiful supply.

All in all, food is a good buy--certainly a better buy than it was a generation ago, thanks to the combined efforts of the producers, processors, wholesalers, and retailers. We must always, of course, include in the list of credits the fine work of the Department of Agriculture, both nationally and statewide, which has worked so efficiently in guiding and coordinating all these varied interests into a smoothly functioning economy that guarantees the consumer the most for his food dollar.

Not only have the food retailers contributed to the consumer through better values, wide varieties, more pleasant surroundings, and one-stop shopping, but they have also made a contribution to their employees through a schedule of higher wages, shorter work weeks, better working conditions, and numerous fringe benefit programs.

The food retailer has also placed at the disposal of growers, processors, and manufacturers the greatest promotional force for the mass distribution of merchandise ever known. Retailers have long recognized their responsibility to channel plentiful food supplies into consumption.

Retailers require a dependable and continuous supply of product, with uniformly high quality, freshness, and eye appeal. The product must lend itself to mass merchandising, yet need a minimum of "selling" effort, and be suitable for sale in all retail outlets--to all types of customers. Farmers and processors must recognize this fact.

Obtaining this dependable supply, uniform quality, and freshness has long been a problem, especially with the retailer in the rural areas. Only a few years ago, most of the major meat packers operated branch houses in many of the lesser populated areas of Mississippi. At that time, it was possible for low-volume retailers to get prompt and frequent service from these meat suppliers--even to the extent that they were able to buy primal cuts of meat already prepared by the packer and without having to purchase the entire side.

Rising costs in the form of higher wages and increased transportation and processing expenses eventually made this an unprofitable venture for the packers, with the result that a majority of these branch houses have been closed in favor of fewer consolidated locations nearer urban centers, where the sales potential makes their operation profitable. This still leaves the rural retailer geographically spread throughout the State, and without a dependable source for the type of high quality, fresh product that he so badly needs.

Retailers are quick to acknowledge and support local growers, whether individual or cooperative, who can supply the quality product. A case in point here would be the egg industry in Mississippi. Four years ago all of the eggs sold in our stores were bought in and shipped from the State of Iowa. Today, thanks to new and modern inspection plants, we are able to put all of our eggs in one basket--the State of Mississippi. Just think of the revenue that our egg producers had been missing all these years.

Another example would be pork. Recent Super Market Institute surveys directed to top meat merchandisers asked what the growers and packers can do to help sell more pork. These surveys indicated consumer dissatisfaction with excess fat, "off" taste, radical price fluctuation, and labeling that was confusing (ready to eat ham--that isn't).

There evolved from these surveys three primary recommendations.

1. Efforts should be made to develop a type hog yielding a leaner meat.
2. Develop a more stable supply system that can even out price fluctuations.
3. Institute measures to maintain constant quality all the way from the packing plant to the retailer.

From the features that we have examined so far begins to emerge the faint pattern of opportunity--opportunity for the farmer and processor. I conceive this opportunity to lie in the area of products prepackaged in consumer units. Where is the best place to do this? I hardly think that the retail level is the best place. If the grower prepackages at a central location, he can perform this service more effectively and more economically. It also offers him the opportunity to obtain a larger share of the food dollar.

This has long been a pet theory of mine. Why couldn't and why shouldn't the producer shoulder more of the responsibility for prepackaging in consumer units? It certainly seems to me that he could perform this function more economically on a mass production basis than hundreds of widely separated merchants could do this individually. There seems to be a slow trend in this direction. Think of selling some produce with a label that read "Packed on the farm with sealed-in farm freshness."

I believe farmers and those concerned with marketing farm products should take note of the change that has taken place in food retailing during the past 30 years. The supermarket had its beginning during the depression years of the early 1930's. Super Market Institute defines a supermarket as a complete departmentalized food store doing an annual sales volume of a minimum of \$1 million with at least the grocery department fully self-service. Other sources accept smaller volume definitions (\$300,000 to \$500,000), but all agree on the other parts of the definition. Progressive Grocer reported that in 1959, 10 percent of all grocery stores were supermarkets, and these supermarkets accounted for 68 percent of all grocery sales. The preponderant portion of the grocery business is transacted by supermarkets. In the years ahead, I think this trend will continue and that there will be further growth in supermarkets. Food sales should increase, supermarkets will increase their share of food sales, smaller grocery stores and specialty stores will continue to decline in number. The outlook for supermarkets is excellent.

While it is true that costs continue to rise and competition seems to get keener in every market, food retailers will continue to become more and more efficient. As our population grows, there will be more mouths to feed. There have been shifts in our age groups caused by a longer life span. This increase in the number of older people, coupled with the food industry's ever-increasing knowledge of nutrition, offers an excellent opportunity for increased sales of low calorie, geriatric foods. As our national economy expands and our gross national product rises, our standard of living rises and increases the demand for food and for better quality food.

Economists have forecast an increase in food sales of 60 percent during the 1960's. One-third of this increase (20 percent) will come from population growth. The remainder of the increase can come from changes in food habits by merely keeping up with the increasing standard of living, and by maintaining the postwar trend in the proportion of personal consumption expenditures that go for food--that is, by upgrading the diet, offering a greater variety of foods, and using more convenient foods with "built-in maid service."

The future of food distribution offers a real opportunity and a challenge to retailers, wholesalers, processors, manufacturers, and grocers. To capitalize on the opportunity ahead, we will have to use imagination and ingenuity as well as coordinated effort. There are still many fine products grown by our farmers on which we have failed to reach our greatest sales potential simply because we have not presented the product to the consumer in the best manner--we have not told the housewife the real story of the product in our advertising. The influence of television today is tremendous. This medium alone can tell the story of a product which is in plentiful supply and at the peak of freshness. Believe me, when a demand for a product is created by national advertising, retailers arrange to get it because they are going to give their customers what the customers want. Yes, it seems to me that growers' associations could spend more money on advertising their product just when the product is ready for the market.

When food retailers are advised by the U. S. Department of Agriculture that a product is in plentiful supply, they advertise it and promote it. When there is a heavy surplus to be moved, supermarket operators get to work to accomplish the job. No one pays them to do it--it is a voluntary effort and it

is good business for them, too. Where else in the world will you find such voluntary cooperation between distributors and growers? Certainly no where except in a free economy as we have in the United States of America.

We who are in the supermarket industry feel that we are partners with growers, processors, and manufacturers in food distribution. We welcome cooperation with these groups to bring merchandise to the consuming public in the most efficient manner possible so that the farmer can get the maximum for his labor and the consumer will get his food at the lowest possible cost.

POSSIBILITIES OF GROUP ACTION IN SOLVING MARKETING PROBLEMS

Clifton B. Cox, Purdue University

Before elaborating on the possibilities of group action, I would like to analyze the conditions that we face with the consumers, what we have done in the past, and the possibilities for the future.

Under present practices of merchandising and advertising by large concerns, the trend is definitely toward large volume buying. No longer can one firm be concerned with having a buyer in each of its retail outlets for purchasing small quantities from would-be sellers. The demand is for uniformity with sufficient volume for large buyers to spend time in making purchases.

Specification buying involves the total marketing process whereby production and marketing are so tied together that these uniform, large volume, quality items can be delivered to markets for ultimate distribution to the consumers.

The increase in self-service merchandising has certainly hastened the trend. Figures secured from the Super Market Institute show for 1959 an estimated 11,000 independent self-service meat departments and 11,500 self-service meat departments in chains (defined as having 11 or more store units). In the Super Market Institute membership, 87 percent of the meat departments are completely self-service, and 57 percent of the stores have all four major departments (grocery, meat, produce, and dairy) on a self-service basis. More than 50 percent of the total fresh meat purchased from chain, independent, and combination stores is now taken from self-service meat cases.

Let's look at some other trends. Fresh fruits have declined in consumption from approximately 139 pounds per person in 1935-39 to about 102 pounds in 1959. Fresh vegetables from a peak of 135 pounds in 1945 to less than 100 in 1959. On the other hand, canned fruits have increased from about 15 pounds in 1935-39 to about 22 pounds in 1959. Canned vegetables have remained approximately the same since 1945. This is about 50 percent higher on a per capita basis than it was before World War II. Frozen fruits and vegetables have, of course, grown very sharply--about tenfold for frozen fruits and twentyfold for frozen vegetables. However, frozen fruits and juices still account for about 15 percent of all fruit and vegetable consumption. Potatoes recently leveled out after the long downward trend because of the tremendous increase in processing and convenient foods.

Meats have about the same story. Processed, ready-to-eat items have increased. Per capita consumption of chicken has more than doubled since 1935, rising from 13 pounds in that year to nearly 29 pounds estimated for 1960.

Breeding has done wonders in winning consumer acceptance, or establishing preference, for the commercial broiler. These broilers have been bred for uniformity in conformation and weight for age, plumpness, color and defeathering qualities (pick cleaner and the pin feathers are either less visible or almost totally absent in the ready-to-cook eviscerated carcass). Feeding and management have done much for quality, and processing improvements have helped to turn out a more desirable bird. As a result of all these improvements, the commercial broiler accounted for approximately 77 percent of the per capita chicken consumption in 1959, whereas 25 years ago the farm-produced chicken furnished 95 percent, and the commercial broiler 5 percent.

Even though there are still a few who live under the illusion that we have a perfect market, most people are now ready to admit that our marketing structure is imperfect. The retailer today who offers 6,000 items in a super-market hoping to accurately reflect the consumer demand to the processor and through to the producer, knows that the best job is imperfect.

The definite trend now is for prearranged or advanced selling. More and more the producers are looking to the market before beginning to produce. For example, the poultry producer would no longer start producing 20,000 broilers per year without knowing which market those broilers are going to pass through. Also, a tomato producer who is producing for the processor plant will not start without lining up his outlet for his production. In other words, many times this specification buying is relayed in some form to the producer before production plans are actually made. Group action may take place in addition to price many times.

GROUP ACTION

Why should we have group action?

1. To get uniformity in quality, volume, and supply properly distributed over time.
2. New distribution of income. Group action at times tries to secure bargaining power for one group over other groups.
3. Expand the market.

Who should do group action?

1. The government at times has attempted to perform the action for the group.
2. The industry itself may at times attempt group action to perform a task for the entire industry.
3. Special segments of the industry may try for bargaining power and a new distribution of income. If producers do this, it is usually done through cooperatives.

What has been the history?

1. Tobacco
 - a. Supply and price have been controlled through acreage controls and price supports of the government.
 - b. Quality has been left relatively free.
 - c. Market expansion has been left to individual companies and habits of users.
2. Grain
 - a. Price has been supported by government but supply controls have been ineffective.
 - b. Quality left free to research and price as regulated.
 - c. Market expansion has been left to individual companies.
3. Dairy
 - a. Price controlled by market orders and price supports.
 - b. Supply not controlled except by price.
 - c. Quality controlled by health regulations.
 - d. Expansion of the market by industry.
4. Fruits and vegetables
 - a. Price left free (except for failures).
 - b. Supply controls through marketing agreements, cooperatives, and group action limited to adaptable areas.
 - c. Quality controls sometimes by contract and cooperatives.
 - d. Marketing expansion done primarily by commodity groups (States have been active in this area).
5. Poultry
 - a. Price--prearranged selling with freedom of price.
 - b. Supply control through contract and integration but free to a certain extent.
 - c. Quality controlled by integration and specification buying.
 - d. Market expansion left to industry and leaders in the industry.
6. Livestock
 - a. Price left almost completely free.
 - b. Supply left almost completely free.
 - c. Quality left free.
 - d. Market expansion by industry groups and individual companies.

EVALUATION

Tobacco--Most people will agree that the tobacco program has been successful in bringing supply in line with demand.

Grain--The problems have not been solved. Supply is not in line with demand at the support prices. Quality program is not in line with the free market demands.

Dairy--Has not solved its problem. Supply is not in line with free market demands or with support prices. Market expansion has not been able to develop sufficient markets for the available supply.

Fruits and vegetables--Industry has control of quality. Much progress has been made. There is danger of competitive advertising for the same market. Area groups appear to get much pride and attempt to get competitive advantage

by organizing without looking at the total market. No one program fits all fruits and vegetables. Fruits and vegetables are a heterogenous grouping and must be looked at separately.

Poultry--We wish we had more like it in market expansion. Other products look with envy at the broiler industry. The integration part of the industry is hard for the other segments to take. There hasn't been sufficient time to evaluate properly the long-run effects.

Livestock--Does not have the same problems as some with price and supply supports. But some group action is needed. Supply fluctuates in cycles. Quality still varies considerably although much has been done to get a more uniform product in beef. Price changes are drastic. During the last 4-year period in which we have had a complete hog cycle, prices have varied from about \$12 average for one month to \$23 average for another month. Market promotion has not been as effective as in some commodities.

WHERE DO WE GO?

There is a place for all groups to work together in this area of getting a product desired by the consumers. Mr. Borchers of Armour stated in February at Purdue's Marketing Clinic that "Personal contact with the customer is all but impossible in today's supermarket which handles over 80 percent of the Nation's meat business in a tremendous volume merchandising operation." Therefore, an efficient marketing system is necessary to get the job done. The universities have a part in education. State Departments have a part. The government has a part in a number of the commodities to assist in market information as well as in other areas. The industry itself cannot neglect its responsibilities for certain policies in bringing about a better product for consumers. The producers, too, have a responsibility. The short-run demand may be different from the long-run for a product. Therefore, producers must look to the ultimate goal of production.

In this way educators, government, industry, and producers must and can work together so that all will benefit.

INSTITUTIONAL MARKETS FOR AGRICULTURAL PRODUCTS

Edythe L. Robertson, Slater Food Service Management

Today I will attempt to relate our needs to you and tell you what the producer and processor in the food industry is not doing for the institutional food field.

Some of you may not be too familiar with the functions and responsibilities of our so-called institutional food processor. It is a very complex market in some respects. We group all sorts of places under the heading of institutions. Many companies break the market down into three main categories:

1. Fine establishments--hotels, restaurants and clubs, where people expect a superior meal.

2. Fast food counters. This group includes all kinds of snack operations from diners to lunch rooms, drive-ins, soda bars, grills, and the hamburger stands that dot the highways.
3. The last group I would class as the real institutional market. Here we have the hospitals, schools, various types of State institutions, the military, factories, retirement hotels, and homes for the aged and aging.

Statistics published by the National Restaurant Association may give some idea of the magnitude of the hotel and restaurant market of which institutional feeding is a part. Today there is \$7 billion worth of business in this market for 50 million people eating out every day. The significance of this is even more interesting when you consider that in 1939 the industry had a \$3½ billion market. Projecting the figures we have today and the trends of the population and all of the social and economic factors, we may well have a market that will approach \$35 billion by 1970. Today about 1 out of every 4 meals is eaten outside of the home. By 1970 it could well be 1 meal out of 3.

With the question, how to provide for and sell this market in mind, I contacted the key people in our organization for this information. On the whole, several people had very little criticism of the part played by growers, manufacturers, and suppliers and thought a good job was being done. Actually there is a service problem in our industry. While we call our large operators quantity buyers, most of them don't have the facilities to buy carlots. In fact, they like to buy and turn the merchandise over almost from week to week, and the great bulk of them buy on a weekly basis.

Many of the people feel that the food suppliers have not really tried to discover the special needs of the institutional feeder. Neither do they believe that food suppliers were particularly active in developing products and services to meet these needs.

I have categorized the major recommendations, which I will cite first and then discuss some specific recommendations. A meat buyer for the Philadelphia regional area of Slaters expressed this point in the following manner: "The meat suppliers are waking up a bit. They are earnestly trying to supply the specification requirements we demand since we are no longer buying carcass beef. The meat cutting or prefabricating plant, as it should rightly be called, supplies the feeding facilities with portion prefabricated cuts which are judged to be the most suitable for the Slater operations. Our Meat Department Price List is published and disseminated weekly, listing the various prefab cuts available to all installations and listing specials for the week and best buys of the week, which in most instances represent the information forwarded to us by your marketing agencies and plentiful food program."

We have found it necessary to develop our own meat specifications for the local purchasing of prefabricated meat cuts. Our initial purchases from industry have proven very satisfactory. The new "Institutional Meat Purchase Specifications" published by the Department of Agriculture are a considerable help to those of us who have them. Publishing the availability of these specifications in your market news would help immeasurably in disseminating this needed information.

Processors, shippers, and institutional feeders need to work together developing ways of streamlining food preparation and distribution in order to cut down on complicated and inefficient kitchen labor. Slater's director of research and development feels that "some institutional feeders are beginning to see the possibilities in prepared and partially prepared foods, either in a frozen or canned state. However, only the merest beginnings have been made in this direction. Processors and suppliers are not yet close enough to the problem and the needs of the institutional feeder to be of real assistance. They spend millions of dollars searching every phase of the home consumption food field at the retail kitchen levels, yet food raisers and processors invest practically nothing in studying the needs of restaurant and institutional feeding."

I ran into considerable criticism of the fact that many of the packaged and canned foods offered are of poor quality. The director of purchasing for Slaters rates dependable quality first in the order of importance of buying and stressed the need for a canner's code lithographed on each can to assure the same quality in large procurements. This will assure us of similar size, flavor, and color in any one product.

Here are some typical comments on the subject of labeling and packaging: "Food processors, canners and meat fabricators all could improve their customer acceptance by properly labeling the container honestly as to the quality and count. As for canners, the correct count in medium large letters should be on the label. As you well know the food service industry buys by the pound and liquid measurement and sells by the portion. Nine out of ten salesmen do not know the contents of the cans, packages, or containers they are selling. They do not know the count or the number of servings or the amount of sugar or the grade of gravity of the syrup. This also pertains to the lack of knowledge of count and the amount of breading contained in seafoods such as shrimp and scallops. It is essential that this information be clearly stated, inasmuch as we must know to the last ounce of food how much each portion will cost us for raw food purchased and the labor involved in the preparation."

In meeting the future institutional food needs of America, I feel that to fully gage performance and to develop new ideas, the producers and manufacturers should periodically take some new views or new definitions of the market.

As they review their task of new or improved product planning, they must, of course, take advantage of technological progress that we know is here or about to come, but in addition they must make a set of assumptions about how the population will change in the future. In general, no one is interested in raising or developing products for which there will be a decreasing demand. Fortunately, it is possible for us to make some quite valid assumptions which will hold for the future barring war or major changes in our laws and immigration policies.

Without attempting to state some of these trends in quantitative terms, I can suggest a list of assumptions for new product producing, processing, and shipping:

1. There are minority groups acting today as majorities will act in the future. This is because they are bellwethers in certain fields or

simply because their numbers will increase in the future and their basic requirements will likely remain the same despite our technological changes. The following, then, are further assumptions which rest on the first.

2. There will be a sizable increase in the number of very young children who will be fed in schools.
3. There will be a sizable increase in the number of very old people who will be fed in homes or institutions. Some implications of selected population projections are:
 - (a) In 15 years, by 1975, we can expect to have 22 million Americans over the age of 65. This estimate would be an increase of 49 percent over the 1957 population 65 and older. In sharp contrast, the rest of the population will have increased, at most, by only 35 percent over 1957. This rapid climb in 15 years to 22 million or more persons will have an impact on industry, consumption patterns and sales, on family life, on the organization of health and medical services, and on the nature of community services.
 - (b) The population 65 and over is not homogeneous in age structure. In a truly aging population there are sufficient numbers in age brackets beyond 65 to warrant separate analysis and consideration. Concretely, there are already nearly 6 million Americans over the age of 75, most of them women. The 1960 census cites that 8.6 percent of our population approximately 15½ million people, are over 65. In 1980, there will be more than 9 million Americans over the age of 75.

As a result of the remarkable progress in science, technology and living and working conditions, our industrial way of life has been marked by improvements in the level of health and in the length of working-life expectancy. One of the consequences of this development has been that people in modern society continue to cherish such values even when they retire from employment and even though they are no longer productive in the economic meaning of the word. An increasing number and proportion of older Americans are just as insistent on an adequate standard of living and level of medical care as are younger Americans. And there is no reason to expect that these younger Americans when they grow older and retire will be any less insistent.

4. There will be an increase in the next decade in the number and proportion of housewives who are commercially employed or who work at least part-time (at least 2 out of every 5 women in 1970 will be in the labor force, and 1 out of every 3 workers in this Nation will be a woman). They will be eating at least one meal out a day, and this labor force will contribute to more families eating out more often.
5. As our technology advances, proportionately fewer workers will be needed to produce the goods we need and more workers will be needed to provide the increasing services required as our standard of living goes up.

6. There will be a tremendous increase in institutional feeding. This could well go from one-third to two-thirds of total meal consumption.
7. There will be a tremendous increase in institutional feeding places as purveyors of food for home consumption.
8. There will be an increase in automated dispensed foods.
9. There will be a rapid growth in scientific wholesaling and retailing.
10. There will be many and varied technological developments in food preparation, storage, and preservation.
11. There will be many changes in our distribution system, resulting from these trends.
12. Something will be done about the weather. I do not refer to the geophysical studies and experiments which could lead to some control of world weather and climate but to the rapid growth which will assuredly occur in the air-conditioning of institutional eating facilities. Seasonal menus may be a thing of the past.

In conclusion, I would like to say that the producers, processors, and shippers of our Nation could more effectively sell to the institutional field by becoming better acquainted with our needs for we are looking to them for help in answering many of these assumptions.

ADMINISTERING MARKETING SERVICE PROGRAMS

Work Group Sessions

CHANGES AHEAD IN MARKETING

Harry C. Trelogan, AMS, U. S. Department of Agriculture

Among the motivating forces behind changes in agricultural marketing--past, present and prospective--one stands out: The drive for efficiency. Three underlying reasons why this drive may be expected to continue are (1) to combat inflation, (2) to move abundant production into consumption, and (3) to attain competitive advantage in a quest for profits.

The last of these--competition for profits--is the most enduring and the most likely to be accepted graciously. Competition is believed to assure change that is progressive and beneficial. It is also believed desirable as a protection to those dependent upon business services. In the instance of agricultural marketing, this means protection to farmers and consumers. This belief is the justification behind public financing of such services as market news and grading.

The evident prevalence of monopolistic competition suggests that complete reliance cannot be placed on the competitive sources of motivation. Programs such

as the State department of agriculture marketing service work may be regarded as prods to make sure that the marketing system doesn't stand still or lose its competitive characteristics.

ABUNDANT PRODUCTION

Marketing, i.e., domestic marketing, must share the burden of moving existing surpluses of agricultural products as well as moving the potentially greater production. Decades of experience indicate that production controls and export markets do not represent adequate alternatives on which to place complete reliance for solutions of these problems. Neither can we accept a philosophy of waiting for a growing population to absorb the agricultural supplies in prospect for the years immediately ahead.

Domestic market responsibilities suggest a need for greater emphasis on meeting competition for the consumer's dollar. We must recognize that the competition confronting food for a greater share of the domestic market includes housing, durable goods, automobiles, travel, recreation, medical care, cosmetics, and personal care. Americans have sufficiently high incomes that they can afford to discriminate among their means for enjoyment. We need to convince them that food and clothing from natural sources can be as enjoyable as any of these alternatives vying for their pay check. This requires high quality products, with the desirable attributes constantly called to the attention of the consumer.

Also included in the competition facing agricultural products for a share of the consumer's dollar are the added services associated with marketing. We are now experiencing an acceleration of a very long-term trend shifting services out of homes and away from farms to the hands of market agents. The current technological revolution is speeding up this process and having a profound effect upon home life, farming, marketing, and our economic structure.

INFLATION

Inflation has been cited repeatedly as one of the most formidable problems confronting the Nation today. A subsiding stock market might suggest that the threat is reduced. Yet, again in September, the consumer price index, often referred to as the cost of living index, reached a new high. Moreover, current predictions are that this evidence of price movements will continue in an upward direction with food prices being one of the casual factors. Businessmen engaged in agricultural marketing will be required to seek greater efficiency to avoid public criticism for contributing to inflation. The fact of the matter is, they will be hard pressed to maintain current prices because of prospective upward pressures from rising costs for all of the things they have to buy including labor, supplies, equipment, raw materials, and capital services. They will have to engage in a competitive drive that will take several forms.

They will seek labor productivity gains, largely through the substitution of capital, in the form of labor-saving devices, the incorporation of greater automation in their systems of operation, and through improved work methods achieved through better training of employees with special emphasis on middle management. They will seek more efficient use of capital that is combined with labor through planning for less obsolescence. They will continue their search

for economies of scale. This portends larger and fewer plants and firms. New technologies are continually expanding these opportunities. Vertical integration may be regarded as one aspect of this development. It involves the bringing together under unified management and control, more successive functions of production and marketing. Competition will occur between whole systems of marketing instead of just individual firms which has characterized much of the competition of the past.

Already, the organization and structure of agricultural markets are undergoing far-reaching changes involving the elimination of functions, for example, exchanges of ownership, and shifting of places where functions are performed--packing or packaging. As coordination of successive operations is achieved through unified management, the old established institutional arrangements will be challenged. Market news and grading services will be among those questioned because these activities have been patterned to fit the older systems and methods. They must be adapted to change as surely as plants and firms. They must take advantage of new technologies similar to those introduced for mass production and marketing.

Change has been so prevalent throughout the agricultural marketing system that many segments could be selected for closer examination to comprehend the significance of these observations. Perhaps the one providing most universal recognition and understanding is food retailing. The family grocery, the once prevalent institution in this phase of marketing, has largely disappeared, a victim of technology. We now need to gain understanding of the institutions that have taken the place of the family grocery. The supermarket is symbolic but it must not be regarded as a homeogenous, uniform type of development. The symbol covers numerous types of ownership arrangements, methods of operation, and management policies. Those engaged in marketing service work have a difficult challenge to keep familiar with evolving variations so they can guide adjustments imposed upon farmers and market agents engaged in supplying the retail outlets.

RESEARCH

Agricultural marketing research is endeavoring to fulfill its obligation to marketing service personnel by engaging in studies that will facilitate the meeting of this challenge. Among recent research publications intended to help you with a comprehension of current and prospective developments in food distribution are:

Changes in the Market Structure of Grocery Retailing 1940-58, by
Willard F. Mueller and Leon Garian, Agricultural Experiment
Station Research Report 5.

Changes in Food Retailing, D. B. DeLoach, Washington Agricultural
Experiment Station, Washington State University Bulletin 619.

Also, Marketing Research Reports 266, 369, 398, 399, and 411, issued by the Agricultural Marketing Service of the U. S. Department of Agriculture. These reports all deal with recent studies of food retailing or closely associated warehousing and processing developments. These publications are sufficient

to illustrate that research is supplying fundamental facts and information to enable you to perform your function of market service assistance effectively. We invite your attention to them.

FACING UP TO THE CHALLENGE

Spencer G. Duncan
New York Department of Agriculture and Markets

Every phase of marketing is moving forward at such a phenomenal rate that it is almost uncomprehensible, and still production continues up and up. Marketing officials are learning that the organizational pattern which was considered adequate 5 to 10 years ago is no longer geared to meet the current day problems. These marketing changes cut directly across every function in a well-organized marketing division.

For example, the changes that have taken place and are taking place in the transportation system have caused us to take a new look at our market news reporting service. The constant exodus of wholesalers from the city markets is making reporting in some markets extremely difficult. It is next to impossible to report markets where only two or three wholesalers now operate, and still there is a definite need for some sort of a price reporting system which will provide the information necessary for keeping the trade informed and for settling transportation claims.

Our whole marketing organization seems to be struggling with the diversion of products from the fresh market to processing. There has been a tremendous shift in the past few years. How do we meet the challenge? First of all, let me say that there was never a period in our history when more serious consideration was needed to solve these complex marketing problems, but I believe we are making progress. Let me just cite a few examples of progress that I have both witnessed and taken part in in New York State. I think the first great step was taken on September 1, 1956, when the ownership of the Welch Grape Juice Company, Inc., was purchased from Old Welch Company, Inc., by National Grape Cooperative Association, Inc. Acquisition of the Welch business and trademarks by the National Grape Cooperative culminated a contractual arrangement signed on June 2, 1952, and established a market precedent for all agriculture in the United States.

More than 3,000 New York State growers are now cooperating with growers in Pennsylvania, Ohio, Michigan, Indiana, Arkansas, Missouri, Washington, Oregon, and Idaho in the operation of this successful cooperative.

In an entirely different field, our division has been instrumental in bringing together 24 Long Island duck producer-processors into two cooperatives which handle more than 60 percent of the volume produced on Long Island. Likewise, selling the product has been cooperatively carried on for some time. This is no small business. It involves approximately 6,000,000 Long Island ducklings.

Inspection and grading was an integral part of this industry even before inspection became mandatory. The grading service is most important in the

merchandising of this commodity, and we are furnishing that service to the industry on a contract basis. At present, we are cooperating with the industry and other agencies in promoting greater usage and distribution of this very fine product.

As you know, a great wealth of outstanding research material has been prepared by the U. S. Department of Agriculture covering wholesaling, retailing, and warehousing techniques. Generally speaking, research material is of no value unless it can be applied. We have heard of many such instances and therefore have taken a keen interest in this project. We found that there is keen interest on the part of all the merchandisers to work with our division in improving their merchandising techniques.

We are carrying on many projects at the present time and requests are continually being received. However, we are limited in the amount we can do by both personnel and funds. In order to make the most efficient use of our funds and personnel, we have adopted the principle of setting up demonstration projects, usually in one store. This plan makes it possible for others in the store organization to witness the results obtained by applying these proved techniques and to fit them into other store operations.

We feel the help we have had from the Transportation and Facilities Research Division of the Agricultural Marketing Service has been most valuable to us, and we are very happy with the cooperation we have received from the retailers. We consider that work in this field is most important and necessary in meeting the marketing challenge.

I am sure you are all familiar with the fact that New York is quite important as an egg producing State. In fact, we stand 17th in production. Egg marketing for years has been carried on in a rather slipshod manner. In many areas of the State, producers have depended upon a country dealer to come around and pick up their eggs once or twice a week. Such a system obviously contributes to many problems in this day and age when consumers are looking for and are willing to pay for products which measure up to the very highest quality. We have been trying to do something about this and are attacking the problem from many angles. One project we are carrying on with a small chain involving about 50 stores is worked out in this manner. Good producers in an area adjacent to two or three stores contract with the chain to provide all the eggs sold in these area stores. The producers must meet certain requirements before they are accepted. The producer candles, cleans, and packs the eggs into cartons and delivers them to the stores. It is his responsibility to maintain an adequate supply at all times. The division assigns a man to carry on inspection work at the retail outlets and forwards a copy of his reports to the chain headquarters. In the event that any trouble develops with the eggs, our inspector immediately brings the trouble to the attention of the producer and together they make the necessary correction. This service is paid for by the chain and has been described as one of the finest egg programs ever established.

Still another effort to facilitate egg marketing is the development of the Empire State Trademark Program for eggs, which has gained considerable momentum during 1960 following several years of basic study, grade determinations, and facility surveys of plants intending to use the trademark. Based upon quality

control with mandatory inspection, efficiency in handling, and product promotion, the goal of this program is to develop new markets for high quality premium priced New York State eggs. The program is meeting with considerable favor and provides another method for merchandising New York State eggs. We have developed several new egg cartons as a result of an informal consumer preference study conducted a year ago. We are still working on the development of better packages in connection with this program. At a recent meeting of the New York State Poultry Council, a committee was appointed to study the possibility of expanding this program to include a large number of high quality producers throughout the State. Again, the expansion of this program is limited by the lack of sufficient funds and personnel.

We are also extremely interested in the Fresh Fancy Program recently inaugurated by the Poultry Division of the Agricultural Marketing Service. We are presently negotiating with several New York State egg distributors who plan to get started in the program in the very near future.

I think one of the most outstanding contributions to New York State fruit growers was the discovery of controlled-atmosphere storage for apples. No development in the history of the industry has taken hold as rapidly as this development. From the small beginning of one or two controlled-atmosphere rooms we now have 168 rooms, with a capacity of 1,904,000 bushels, operating in New York State.

All controlled-atmosphere storages must be registered with the Division of Markets, and all packages of apples sold as "C.A." must be identified with the registration number, preceded by the letters C.A. Repackers are also licensed and furnished with a number. The law provides that adequate records must be maintained by the operator at all times. He must also notify the division concerning dates and other pertinent information needed. During the season, our inspectors make periodic checks of the records and rooms to determine compliance with the regulations. This marketing project makes it possible for consumers to enjoy orchard-fresh apples as late in the season as June, July, and August.

Two additional tools adopted recently are serving their purpose also in meeting the challenge of better marketing. I refer to the Red Sour Cherry and Apple Marketing Orders. These orders, proposed by the industry and supported by them by means of assessments on all red sour cherries and apples grown in the State, provide the necessary funds for research, marketing information, advertising, and publicity. The commissioner is the administrator of both orders and has contracted with the associations representing the growers to carry on their own research, information, advertising, and promotional programs.

Automation on the farm has presented many marketing problems. Replacing hand labor with machines calls for a complete new procedure in the inspection of raw products for processing. Meeting these rapid changes has taxed the division's personnel, but by constant effort we have been able to develop the necessary new techniques without interruption in the inspection service.

Each day brings a new marketing challenge. Whether or not we meet this challenge depends on our ability to evaluate the problem and come up with the

right answer. As I have stated several times before, this takes both money and personnel. The matching fund program has helped us tremendously in solving some of our most intricate problems. I have mentioned only a few but enough to give you an idea as to how we are meeting the challenge in New York State.

Now, obviously, it has been necessary for us to make many changes in our Markets Division to cope with the changing situation. When we first participated in the matching fund program, we limited our participation to statistical studies and market news functions. We carried on these functions pretty well with the personnel already employed in the Division of Markets and in the Bureau of Statistics with the addition of one or two people.

For many years we have been attempting to build up a group of marketing personnel who not only operated in their particular fields of farm products, inspection, market news, cooperative work, marketing facilities, and other functions, but we have taught these people to interest themselves in the general marketing problems.

We organized a farm products promotion and marketing service section in our Division of Markets and placed our head farm products inspector in charge. We then surrounded him with a small group who had proven over the years that they were capable of attacking a problem and trying to solve it. We took advantage of every opportunity by sending these folks to the Federal merchandising schools, to marketing workshops, and to other conferences that would improve their knowledge and know-how. In other words, we wanted these people to be tops in their respective fields.

By this method, we have been able to build a section in our Division of Markets which we think is performing a worthwhile service to our agriculture and helping our marketing people to meet the challenge. We still have a long way to go but I feel we are making headway and will continue to go forward as long as we face our problems with understanding and with the determination that there is no marketing problem that cannot be solved by unified action on the part of the producer, the processor, the wholesaler, the retailer, and last, but not least, the consumer.

DETERMINING NEEDS FOR AND OBTAINING INDUSTRY COOPERATION IN MARKETING SERVICE PROJECTS

Donald E. Wilkinson, Wisconsin Department of Agriculture

The topic assigned me at least implies that two separate areas are to be explored: First, determining the needs for marketing projects, and second, securing industry cooperation in developing and carrying out those projects. I have chosen to use the broadest definition of marketing service projects, meaning the total area of agricultural marketing work that may be carried out within a department's division or bureau of markets regardless of whether it is financed by matched funds, revolving funds, State appropriations, or some other method. To handle this topic I have chosen to talk in terms of fundamentals but not specifics. It is my hope that these basic thoughts may be applied in varying degrees to your State's marketing program and your commodity or industry groups with which you work. Specifics are dependent upon State

policy, commodity importance, finances, and many other things over which we may have little or no control. These 7 fundamentals will each be represented by a single word which we hope will be meaningful to you.

Stimulation

To the vast majority of people engaged in some segment of agriculture, whether it be the farmer, the produce hauler, or the plant manager, marketing is an extremely intangible, indefinite process. Production on the other hand, especially for the farmer, is as definite and clearly defined as black and white. It means land, labor, fertilizer; it means gasoline, combines, storage bins. To plant operators, it means units per hour or cents per hundredweight. These are the people with whom we must work and whose marketing needs we must determine. These are the people whose cooperation is essential if a marketing program is to be of any value to them.

Our job is to expose them to the total area of marketing within which they must have interest. Our job is to stimulate in them ideas for improving some portion of their efforts. One of the greatest values of a workshop such as this is its ability to stimulate in us new ideas, new areas of service. It is our responsibility to reflect these to our staff and they in turn to industry groups. May I cite an illustration? Marketing days for various commodities have been discussed at workshops in the past. One of our men over two years ago suggested in a speech before the Beekeepers Association of our State that a Honey Marketing Day could be of real value to their industry. This idea was received, rejected, revitalized, and finally, after committee sessions and resolutions, the event came to pass this last September. It has now been proclaimed by our State association as one of the most important improvements that has taken place in the marketing of their commodity in years.

This is one simple form of stimulation. There are others available to us daily.

Evaluation

One of the problems in the field of marketing as contrasted with a specific science such as chemistry, physics, or mathematics, is that we are unable to apply formulas to clarify and solve our problems. Perhaps electronic data processing will eventually assist in this area. Today, however, if we are to determine the needs for marketing, we must evaluate, we must analyze.

Is it not possible in our work with commodity and industry groups to carefully attempt to define the problem areas, especially those areas where improvements are long overdue and where efficiency is lacking? I think it is. I was pleased this week to receive a memorandum from one of our division's dairy marketing men resulting from a 3-day visit to several dairy plants. This memorandum very clearly lists 10 specific problems to be solved and then lists some 12 or 15 possible solutions or approaches to solving those problems. I believe one of the greatest services we can render industry is to sit down with them and attempt as an interested and informed outsider to clarify their problems, present alternatives, and evaluate the effect of each alternative.

Incidentally, I think we administrators of our own departments or marketing programs have a responsibility to regularly evaluate all parts of our marketing efforts and especially to ascertain that these efforts are part of a carefully planned long-range program.

Resources

For a State agency adequately to determine needs and obtain industry cooperation in this field of marketing, it is essential that it have certain tools with which to work. These we have chosen to call resources. Inevitably one of the first of these must be finances. In past years I think many States have had difficulty in securing marketing appropriations primarily because of the lack of knowledge and interest by legislators in this important phase of service work. More recently marketing has come into its own, primarily due to the realization on the part of the general public that agriculture can produce more than is needed and that a real problem exists in handling this abundance. We must capitalize as fully as possible on this growing interest.

Here I think it is only fair to recognize the benefit of the matched fund program authorized under the Agricultural Marketing Act of 1946. Without this, some divisions of markets would never have been organized. Others of us who have been established for years, may not have been able to expand into certain fields which have proved of great value to our respective industry groups. It is imperative that we continue to use these funds as wisely and as efficiently as possible for the purposes intended.

The second resource that I think is important is within our commodity groups or industries themselves. This I classify as organization. It is recognized that one of the successful ways of making marketing work meaningful to the people within an industry is to have those people part of the planning and execution of that program. Strong, active industry organizations are an essential resource and should be encouraged as direct means of determining that industry's needs and of obtaining that industry's cooperation.

The third resource and perhaps the most important is personnel. Someone once said that a Nation's greatness resides not in her material resources but in her human resources. I would like to paraphrase that by saying that the value of our department's marketing work rests not in the appropriation alone but in the staff that administers and executes that marketing work.

What kind of people must these be who fill out our personnel rosters? To me a marketing man today must be creative. As we have already mentioned, he must, with his creativity, be able to stimulate his segment of agriculture into new phases of work. He must be public relations minded--one who is able to know personally the needs and problems of those with whom he works. He must be a patient man, for if he is of any value at all he will be thinking 1, 2, 3 or more years ahead of the industry. Yet he must be aggressive. He must know when to suggest a change, how to suggest it, and with all of his ability, sell it to the leaders of the industry. And finally, in my estimation, a truly successful marketing man must have confidence in himself and in his ability, and in turn enjoy the confidence of the industry with which he works. As we well know this is not achieved overnight. It usually develops very slowly and frequently can be the key between success and failure.

Cornelius Vanderbilt, Jr., once said, "Lack of confidence and lack of information sleep in the same bed locked in the closest kind of embrace. When a man has confidence he gets along in business, without confidence he might just as well not enter business at all. For confidence is the son of vision, and is sired by information."

Vision

We have just referred to the fact that vision is the father of the confidence that our marketing man must exhibit. What does this word vision include in our consideration of marketing as it applies to the specific topic of today? Vision is the ability of a marketing man to see and understand the total concept of marketing from the preparation of the product for market at the production point to the final enjoyment of the finished product by the ultimate consumer. Vision is the ability of one of our market news men to not just turn out the daily bulletin but to understand fully the impact this information may have on all parts of the marketing channel. It's the ability of our inspectors not to place just the grade on the certificate but to have sufficient concern to help that packer achieve a better grade. It is the ability of a department head or a marketing chief to think beyond the routine problems that come to us daily from all segments of our agriculture and to visualize where we as leaders of agriculture should be guiding this great and important segment of our economy.

Agriculture today is at a very critical point and those of us in marketing are in key positions to do something about it or to flounder by the wayside. There are real opportunities ahead if only we take time to think first as individuals, then as a department, and finally, with our industry, of the future and its needs. We are in positions where we can constructively challenge these industry people who day after day live with the routine. We can broaden their horizons so that cooperatively we may be ready for the future.

Incentive

We all recognize that there are some individuals and even some industry groups who will willingly venture into new activities because we have in one way or another pointed out the opportunities existing. However, usually there must be an incentive that must be exerted if we are to secure the cooperation of an industry.

What are some of these incentives? Some may constitute a rather indirect thing such as saving labor in the marketing process, saving time, or improving quality. However, these all usually end up with one final goal--financial reward. Whether we admit it or not, one of the greatest incentives of every segment of our economy in this century is the dollar sign.

It is actually amazing how slow some of us in marketing work are in recognizing this. Using as a personal illustration our promotion program, we had the strange idea that the food retailers would happily cooperate with State programs to promote cheese. Some of the aggressive ones in the early years of our promotion did because they were already ahead of us. It was not long before we realized that many more would join us as soon as we pointed out to

them the important place that this dairy product plays in providing its share of their gross dollar volume. We soon started talking in terms of return for square foot of floor space. This was the incentive.

Another type of incentive which many of you, I am sure, have used is relating the success stories of other industry and commodity groups where the basic principles may be related to the commodity under consideration.

Cooperation

I am beginning to think that the word cooperation is one of the most overworked words in the English language. It means many things to many people. I am going to discuss just one form of cooperation because I believe it is the key to achieving the final results for which we are striving, and yet many of us are afraid to use it.

The cooperation I am referring to is the help that is available from other sources. We must recognize that with the resources available from most of our divisions of markets it is impossible to have readily available all knowledge needed to do the job. Frequently this specific talent is available from other divisions of our own department, the U. S. Department of Agriculture, and from the Agricultural Extension Service with its specialists.

Effectiveness

Effectiveness, success, results, or whatever you choose to call it, is a relative thing. Henry Ward Beecher once said that "Success is full of promise till men get it, then it is a last year's nest from which the bird has flown." It is important in my estimation in working with agricultural groups to help them see the effectiveness of their efforts. The success of any of our marketing projects usually comes step by step, and not for months and perhaps years will the final complete results be achieved.

Realizing the progress that is taking place in other segments of our modern economy, it is imperative that we impress upon those in agriculture for whom we work that any success which may be achieved must only be the stepping stone to further advancement and improvement in agricultural marketing. Today we must run to keep pace, there must be no coasting. The farmer who "isn't farming half as well as he knows how to now" may not be here tomorrow. We must dedicate our efforts to effectively serving the aggressive leaders in all segments of our agriculture.

These are the fundamentals to effective service. In my estimation a State department of agriculture must understand and must use them if within its State it is effectively to determine the needs for and obtain the industry's cooperation in carrying out a strong aggressive marketing service program. In summary, these fundamentals are:

Stimulation--New ideas for improving some portion of marketing efforts.

Evaluation--Define problem areas, alternative solutions.

Resources--Funds, yes, but competent staff.

Vision--See and understand total area, opportunities, tomorrow's needs.

Incentive--Emphasize those things that will stimulate action--financial reward.

Cooperation--Talent is there, use it.

Effectiveness--Measure it, but use it as a stepping stone to further effort.

The proper application of these fundamentals will add up to SERVICE.

MANAGEMENT PRINCIPLES TO FOLLOW IN ORGANIZING AND
CONDUCTING MARKETING SERVICE WORK

Daniel M. Dalrymple
New York Department of Agriculture and Markets

In developing a good team, whether it is football or marketing, we need a smart, fast-moving group of heavyweights who will tackle anything that appears to be alive, block out all interference, kick like the devil in the right direction, pass to the right team, and catch on fast. Now this means that you have to set up high standards in performance, set them as high as the budget will allow, hire the best people you can get, have them under Civil Service, and emphasize the quality and training of these people rather than the quantity. These folks need the initiative and fire for this work, need to be able to improvise and tie things together fast, as well as to be basically trained, as most of our people were trained in inspection work before they came into the farm products promotion field.

Several people in our department have been wondering if the name of our department should not be the "Department of Agricultural Markets." Practically all our recent operations could have been named "agricultural markets." We are engaged in developing and holding markets for our farm products and in increasing consumption of food raised in the Empire State.

The Division of Markets is divided roughly into, first, the market facilities branch where we have studies made and are administering three marketing authorities in the State. We also work with all the cities and the other market facilities in the State, be they municipally, privately, or cooperatively operated. The Division of Markets, of course, cooperates very closely with the Bureau of Statistics.

The second branch under the Division of Markets is Farm Products Inspection. At certain times of the year, in addition to the regular staff, we have 600 or 700 inspectors who work under the direction of the Farm Products Inspection Division. That, I think is common to all States.

There is Farm Products Regulation--wholesale, retail, cold storage, and processor, and this particular section is now doing most of the work in enforcement of our marketing orders and agreements, for both cherries and apples. Our basic law in New York is modeled after that of California. I think the next thing that this group of directors may have to give a good deal of study to is how best to work with these marketing orders and agreements in other States, as I believe these laws will be increasingly adopted. There is always the question as to whether the laws are constitutional--ours apparently are; but other administrative problems will come up.

We have one division which handles cooperatives; that is, the actual development of cooperatives.

We have an extensive licensing operation of all commissionmen and some of the dealers. We do have a loop-hole in that law that excludes buyers. Some of our dealers now are becoming buyers and are evading our licensing and bonding provision to some extent.

We have then the final group, the farm products promotion group, that was developed during the past 5 years, and which was set up as were the other divisions of State government. We are now in the process of setting up the administration or organization for handling marketing orders and agreements. We have had to proceed there in a legal fashion. We got along fine with the cherry people because all cherries were processed, but when it came to apples, fresh and processed, we have subpoenaed a few people to get their money.

It really would be bad, and this is in a serious vein, if any of our Division of Markets was too much affected by political appointments or changes that do occur. We aim to develop in New York State a Division of Markets that is above this effect.

A previous speaker indicated the need for inspiring, training, and developing the quality of people who work on markets. We do this with the usual devices--frequent meetings, close cooperation with research people, and close association with the College of Agriculture and the research they are doing. In fact, we have cooperated with them on a great many projects. We like integration of our forces--our personnel.

Success is directly related to the time we put into plans and we appreciate the value of good planning. You have to have basic formations you can use to meet most emergencies as they develop. Our success is pretty much measured by the time we spend in getting ready for any of these major operations. We don't want, for instance, to have 5 people from State government appear in the same store on a couple of successive days. It drives a manager crazy. We want to avoid some of those mixups in the back field and not miss some of the signals, so let's keep our planning abreast of the situation.

We have to be legal; we have to follow the rules. If we make too big a mistake in New York State we can be penalized not 15 yards but 15 years. So far we have stayed legal because we talk with lawyers first and not afterward. And we do have a well-trained and capable legal staff.

We have to keep synchronized. We can't have much clipping and backhanding, and once in a while it's nice to give an assist to the other fellow even though you may not get any credit. You have to know where you're going. That's why these national meetings are very important--to realine our thoughts, charge our batteries, and keep going in the right direction, so we are not left out in the left field holding on to the Statue of Liberty.

We very seldom make a lot of ground with a spectacular play. It's the little deals that you keep working at and accomplish that really give the sound foundation. Gaining 4 or 5 yards a play is still pretty good football, and it's pretty good marketing. Our boys give their current effort everything they

have while they're at it. There is nothing so frustrating, I think, as getting the ball down to the 1-yard line and then not scoring. And I don't think we want to scatter our efforts to a point where we do too much of that ball carrying that does not score. We want to hit it hard and keep on hitting until we get something out of it. We sometimes abandon a lot of our projects just a little bit too quickly--we almost get things done, but not quite. We are diverted by some other group which comes in and says "How about us?" Our "quarterback" in the division doesn't have to run over to the bench on every play; he carries on in the field and develops a group that he can trust--and we don't interfere.

I think it is important too that we have a good team for next year. Continuous operation in marketing is very important. We've got to evaluate these operations in dollars we find for our government. We had a very good evaluation of the recent effort to move Long Island potatoes in the face of a serious oversupply situation. Our New Jersey friends produced a lot of potatoes at about the same time we did. Cuba decided that they weren't going to eat any more and didn't take about 40 or 50 carloads. But actually the very concentrated, well-planned operation on promoting Long Island potatoes brought good movement. It was possible, by keeping track of things as we went along, to evaluate that operation in dollars and cents, not only to the industry by moving the potatoes but the value to all elements of potatoes on the Island. We found this work was very effective in presenting to our Budget the need for funds for this farm products promotion work which we have to sell as a new operation. I suppose this is true in most of our States. I think the publicity and the public relations work should be continued, and in that way we can bring up the regard for this on the part of the people who are responsible for our public funds.

I am certainly glad to hear these remarks at the meeting and learn of the operations of other States because we surely will adopt some of them in the biggest market in the world--in New York State.

WHERE FOOD PROCESSING COMPANIES GET IDEAS

H. W. Schultz, Oregon State College

Because food processing companies depend upon ideas which make money and because the Department of Food and Dairy Technology at Oregon State College endeavors to "feed" ideas to processing companies in the State, a survey was conducted to determine the most effective channels for introducing ideas.

The companies in the survey were located in the western and southern parts of the State, where most of the processing companies are situated. Selection was made at random but according to commodity and size of the company. Sixty-one companies, or 41 percent of the total processing plants in the State, were visited. Of these 25 percent were large companies, 42 percent of medium size, and 33 percent, small.

Interviewers considered an idea as any suggestion that might result in (1) a new product or service to be performed by the company, (2) a lower cost of manufacturing and marketing products or of providing services, or (3) increased acceptability of products or services. Ideas were confined to technological subjects.

The number of ideas which came to management attention during a year ranged from 3 to 500. Of these, 1 to 280 were evaluated to determine if they were worthy of adoption. From 1 to 175 ideas were adopted each year. An average of 140 ideas were suggested; 62 were evaluated; 37 were adopted.

A few of the observations resulting from the survey are as follows:

Top management decides if ideas should be evaluated, and the evaluation is usually done by management groups.

Only 28 percent of the companies have persons or groups encouraging employees to give ideas.

A few companies encourage employees to suggest ideas by giving awards, bonuses, and recognition. Managements of all but one company believe employees propose ideas as part of their jobs, not for rewards. The employees agreed that proposing ideas was part of their jobs.

Fifteen percent of the companies interviewed or visited have "Suggestion Plans," but only one-third of these designated them as a way of encouraging new ideas.

Three hundred and twelve ideas were reviewed by management, 245 of these were adopted, 67 rejected. One hundred and six ideas were believed to have been suggested by persons outside the company, 206 by persons within the company. Seventy percent of the ideas had been adopted or were being considered by other companies when first suggested. The remaining 30 percent were believed to have been originated by company personnel.

One hundred and fourteen ideas were reviewed with the supposed originators and an additional 49 persons were interviewed because top management said they were "good at producing ideas." Half of all of these people said they had participated in company meetings designed to produce ideas or to solve specific problems.

Most ideas (34 percent of all) originated with another processor, according to the "originators" who said they either saw them in other processor's plants or had them described to them by employees of those plants. Thirty percent of the ideas would be classified as original. Nine percent were suggested by supplier's representatives. Only 3 percent had their origin in reading material.

When asked what they believed "help get ideas," the 163 persons interviewed said visiting other plants and talking to persons from other plants. Reading was said to be the next most important stimulation to ideas. Suppliers were next.

It is interesting to note that these persons mentioned reading as a real stimulus, and yet only 3 percent of the ideas studied had their direct origin in written material. Therefore, further study is needed to determine the exact role of written material in stimulating ideas.

MEASURING THE EFFECTIVENESS OF THE VERMONT
MILK FLAVOR PROGRAM

Harold O. Clark
Vermont Department of Agriculture

The milk flavor program has been in existence in Vermont for more than 5 years. It was originated by the Vermont Extension Service and has operated as an AMS matching fund project under the supervision of the Commissioner of Agriculture. Its object has been to make milk appealing, as a beverage, by improving the flavor. My job is to get producers and processors to effectively control milk flavor.

To control milk shipped out of State, samples from all producers are tasted monthly by laboratory technicians. Then all producers whose samples score less than good, are contacted by company fieldmen who help find the causes of off-flavors and get corrections made. Producers have cooperated very well as they have become aware that it is good business to market milk that tastes good.

Milk retailed in Vermont is controlled in a slightly different way. Most of the flavor testing of this milk is done in the Vermont Department of Agriculture Dairy Laboratory. The samples which the Vermont dairy inspectors have sent in for quality tests are also tasted for flavor. Reports of findings are sent to both the inspectors and milk handlers concerned. Followups are made by the inspectors wherever necessary.

As flavor control has become a well established part of milk quality work in Vermont, the methods of avoiding flavor hazards have become fairly well known. For example:

1. Feed flavors have been reduced by feeding strong-smelling and tasting feeds after milking.
2. Better ventilation in stables has helped to eliminate barny tastes.
3. Rancid tastes have been avoided by drying off stripper cows.
4. Oxidized tastes have been lessened by discarding milk utensils with contact surfaces of damaging metals (copper, brass, iron).
5. There is improved milk handling equipment in processing plants.
6. Processors keep a closer watch on milk quality.
7. Much of the milk retailed in Vermont is in amber glass which prevents damage by light exposure.

This briefly, outlines the program; now let us consider what makes it effective. First, it is very necessary to measure the probable effectiveness of the details of plans before they are carried out. Then, while promoting and doing the work, its effectiveness must be constantly considered. Also, we must look back frequently to see if what we have done has served a useful purpose.

In making plans it is necessary to propose practical controls which fit in readily with good farm or plant operation. We must be sure that the proposed corrections will make the milk more appealing to the consumers. For example, I thought that slightly overpasteurized milk was injured in taste. At the 1959

Vermont Fall Foliage Festival in Danville, Vt., I served samples to 89 people from 16 different States. Five out of seven preferred the sample that was not overpasteurized.

Another problem was the accumulated light damage to milk. To measure this damage, I took over a hundred samples from kitchen refrigerators in the consumers' homes, and I learned that the damage was considerable. I also studied the effect fluorescent lights in store refrigerated display cases had on milk in paper cartons. Contrary to general belief, paper containers do not protect milk from light exposure although they are superior to transparent glass.

Another survey revealed that farm children in the lower grades in school and students in vocational agriculture in high school preferred raw milk to pasteurized. Unknowingly, they were protesting the flavor damage, largely from light exposure, which should have been prevented.

In introducing amber glass to consumers, I have served samples to many large groups and found that most people were surprised to learn how good milk can taste.

These are some of the measurements that I made to see what should be done.

Following is evidence that I have been able to get, of what the program has accomplished: Laboratory technicians grade a milk sample as to whether it has a pleasant taste, or not. The improvement of poor-tasting milk will make the supply of which it is a part better. One of the largest milk handlers showed me records that in 1956 about 20 percent of producer samples were unsatisfactory; however, in 1959, only 2 percent were not good enough. Other milk dealers' records have shown about the same rate of improvement.

Alec Bradfield, Professor of Dairy Manufacturing at the University of Vermont, and I have gone to Boston periodically to flavor-score all shipments of milk from Vermont to the major handlers in that area. At the time the program started, the average flavor score was a low FAIR. Our last scorings of about 100 shipments to all the major dealers were VERY GOOD.

With the milk retailed in Vermont, there has been corresponding improvement of the milk from the dairy farms. The Vermont processors and retailers have installed much new equipment, some refrigerated delivery trucks, and many of them are using amber glass milk bottles. According to the records of the Vermont Dairy Commission, the retail sales of fluid milk in Vermont have increased 11 percent in 4 years, without any increase in population. This is the best evidence that the program has been effective.

The Milk Flavor Program has also alerted all segments of the dairy industry to the extreme importance and worth of careful quality control.

MEASURING THE EFFECTIVENESS OF A PROGRAM TO IMPROVE
GRAIN MARKETING FACILITIES

O. W. Faison, North Carolina Department of Agriculture

We are living in a jet age in which the effectiveness of what we do is of prime importance. The philosophy of "make every move count" is essential in our work. High costs of production, processing, and merchandising, with relatively small margins of profit, make it necessary to increase efficiency and reduce operating costs. Producers pay for inefficiency in marketing; therefore, our market service programs are designed to assist producers and commercial firms to improve marketing facilities.

To intelligently carry on a market service program, the agency responsible for its progress must measure the effectiveness to assure desired results. We should plan outlines and goals to accomplish our mission. Once the program is in effect, we need to evaluate the results to determine the benefits to producers, industry members, and others. The service programs should be flexible enough to change and adjust to meet trends and changes taking place in harvesting, processing, and merchandising agricultural products.

During the past several years we have experienced changes in harvesting corn from hand pulling to machine picking and shelling in the field. This, in many areas, overloaded our existing facilities from one season to another. Our specialists began to concentrate on assisting firms in remodeling plants to receive bulk grain. This involved installing larger dump pits; power hoists to empty trucks; high speed legs for elevating, turning, and loading out; and larger cleaners, scales, and grain dryers to remove excess moisture for storage, sales, and processing.

This year we have been faced with a grading and marketing problem in corn and soybeans because of crotalaria. The sandy-soil counties of the State were using crotalaria through the Agricultural Stabilization Conservation Program of soil building. This has been the practice for years and many farmers have raised the humus and fertility level of their soil; therefore, increasing yields. When picker-shellers moved in and replaced hand harvesting, crotalaria was harvested along with the shelled corn. Research results showed that crotalaria, even in small dosages, was toxic to livestock. Specialists initiated a meeting of various State agencies and representatives of ASC to discuss the problem. We recommended that crotalaria be taken off the approved list of soil-building practices. Producers and dealers had to be advised of its effect on poultry, swine, and livestock. Elevator operators and feed processors had to be advised of the research results. The various agencies, working together, told the story and planned an approach to the problem. The North Carolina Grain Production and Marketing Committee prepared and distributed a bulletin entitled "Crotalaria--Friend Turned Foe." Our seed marketing specialist developed screen sizes for cleaning, while specialists of other agencies prepared research data, cover crop recommendations, and so forth.

Stink bug damage has become a problem in merchandising soybeans. Specialists were faced with the problem of assisting farmers, buyers, and sellers in identifying this type of damage. This was a special factor in merchandising.

The U. S. Department of Agriculture has authorized this factor to be shown on the grade certificate.

These problems have been brought out to show that market service programs do not operate smoothly. We have to be flexible to take care of immediate problems and simultaneously continue to make progress with planned programs.

How do we measure the effectiveness of our grain market service program? We can measure the effectiveness through:

I. Surveys

A. Informational card or letter to determine the following information for a specific period of time.

1. Number of storage bins added.
2. Kind and make of dryer added.
3. Number of firms buying and selling on grade basis.
4. Kind of grain purchased.
5. Grading equipment, moisture meter (kind), divider, scales, screens, test weight, probe, thermometer, and so forth.
6. Assistance needed in remodeling existing facilities for efficiency, expanding handling and storage capacity, financing, grading, drying and other.

B. On the job

1. Contact managers of facilities in the area to determine trends and changes taking place, type of operation, utilization of assistance, and recommendations made by specialists.
2. Compare prices, systems of buying and selling, and operating policies, of an area before and after a marketing facility is added.
3. Contact farmers and agricultural workers in an area to determine the effects of a market for a specific agricultural commodity.

II. Analyze the effectiveness of a program on the basis of experience and data accumulated. Examples:

A. Remodeling facilities

1. If we determine that a manager of a facility, after remodeling, has increased his volume of grain from 100,000 bushels per year to 500,000 bushels, we know that (1) his per unit cost has been reduced, (2) his price is more competitive with other facilities in the area assuring producers of receiving higher prices for grain, and (3) the merchants benefit because farmers have more money to spend. These are general and intangible benefits. On the other hand, if we compare the price of grain at this facility before remodeling, we find that he was 15 cents per bushel under competitive markets. The freight difference between markets was 5 cents; therefore, the farmers stood to gain all or at least a part of this 10 cents through competitive prices.

- B. New modern facilities with 250,000 bushels storage capacity. The addition of new grain storage and marketing facilities in an area results in: (1) A nearer market for producers which saves time and transportation; (2) better prices because the plant can operate more efficiently and pay competitive market prices; and (3) the whole economy of the area is increased. During the harvest period, the facility continues to receive and merchandise grain. If the facility is full at the end of harvest, we know from experience that at least 30 cents per bushel on transportation out at harvest and back during the year is saved on 250,000 bushels. This would amount to \$75,000. The grain, poultry, livestock, and swine producers along with the industry benefit. Estimates show a loss of 10 percent to rodents, birds, and insects; therefore, 25,000 bushels could have been destroyed without proper storage facilities. This saving could amount to \$31,250 to producers and the industry.
- C. Assistance in merchandising on grade basis. Specialists have experienced the following examples:
1. The "hog-round" system of buying and selling grain resulted in a producer with No. 2 yellow corn receiving 10 cents per bushel less than other markets paid for No. 2. This means a premium being paid for "junk" or lower quality.
 2. Specialists, while assisting a firm in buying wheat on grade, discovered that the buyer was not using a thermometer in moisture determinations. The firm was discounting the producer 2 cents more per bushel on this basis. The specialist corrected this situation. On a balance of 200,000 bushels that the firm anticipated handling, producers received an additional \$4,000.
 3. Another case reflected that the buyer was using the small grain roll on soybeans, which ran the moisture 3 percent higher. This was costing producers 15 cents per bushel. The farmers realized approximately \$75,000 additional income on 500,000 bushels for the remainder of the season.
- D. Summarize our personal experience, data, and other knowledge to determine the general benefits and the dollar value benefits to the producer, the grain industry, community, and the State.

During 1959-60, we estimated that the grain marketing service program was worth 1-3/4 million dollars. The saving was on transportation costs out at harvest and back the remainder of the year and eliminating the loss to insects, rodents, birds and deterioration because of more and better facilities on and off the farm. Intangible benefits were realized such as more money for producers to spend for seed, feed, fertilizer, equipment, clothing, and furniture. The whole economy of a community and State was raised.

We as State agencies conducting the various market service programs should not only measure the effectiveness or results of our efforts but also evaluate our existing programs to determine: (1) If we are solving the problem; (2) if

we are flexible enough to meet trends and changes taking place during a marketing season that bring new problems into play; and (3) if we are revising our objectives and methods of conducting market service programs to accomplish the right results.

METHODS OF EVALUATING THE SALES EFFECTIVENESS OF PROMOTIONAL PROGRAMS FOR AGRICULTURAL PRODUCTS

Peter L. Henderson, AMS
U. S. Department of Agriculture

The primary purpose of promotion programs sponsored by agricultural commodity organizations is to enhance the sales and prices of individual products in the market and thereby strengthen the income of producers. Thus, these groups have a special interest in evaluating the sales effectiveness of their promotional programs. They are not only interested in knowing whether the programs are effective but also in information which will aid them in planning and designing more effective programs and operational techniques.

Many scientific techniques have been developed for copy testing and measuring audiences of media advertising (hearing, reading, and viewing). Techniques have also been developed to measure the retention of the advertising message by the hearing, reading, or viewing audience. On the other hand, research to evaluate the sales response to advertising and promotional programs is limited. Also, little positive work has been accomplished in relating audience ratings to sales.

The Market Development Research Division of the Agricultural Marketing Service has conducted several research studies in cooperation with commodity promotional groups to evaluate the sales response to specific promotion programs. To date, these studies have been pioneering in nature and confined to evaluating the short-term effects of promotion. So far, we have directed our major attention to the question, "Does commodity promotion result in selling increased quantities at the same or an increased price, or the same quantity at an increased price?" We are now turning to new questions: "Is one kind of promotional program better than another?" and "What is the relative response of commodities of different kinds to promotion?"

The important problem of determining long-term effects is more difficult than measuring short-term effects. The primary difficulty encountered is measuring and making adjustments for the effects of other variables affecting the sales of a commodity which change over a period of time. However, if the trend in the developments of computational equipment continues, this problem will not be insurmountable.

Another important problem in evaluating the effectiveness of promotional programs is translating the market effects of promotion to dollar returns and measuring these returns against expenditures. To date, our experience on this problem has been limited to one study.

When this work was initiated, one of the main problems was and continues to be the development of new and improved tools for effectively isolating and measuring the effects of promotion of a specific product. This is because there are normally a number of variables operating in the market which affect the sale of the advertised product, other than the promotion being measured, and these constantly change in the degree of their impact on the market. To name a few, the factors which must be taken into account include consumer income; seasonal influence; price, quality, supply, and consumption trend of the test product; and the number, kinds, qualities, and prices of substitutable products available and the degree to which they are being promoted.

Four techniques for measuring the effects of overall market promotion over the short run have been used. These are: (1) The subdivided time series using a single market; (2) test and control markets; (3) multiple regression analysis; and (4) controlled rotational experiment.

The subdivided time series: This technique is the least refined of those used and consists primarily of comparing sales of a selected product in a test market before, during, and after the promotion period. The basic assumption underlying this technique is that all factors affecting sales, except the promotion under examination, are the same in each period. In this technique the prepromotional, or base, period is the only benchmark for measuring changes in sales. Thus, these considerations require that the total study period should be kept short to minimize the possibility that factors other than promotion will change significantly. However, the technique might be adequate for commodities normally surrounded by stable marketing conditions.

Matched cities or test and control markets: The limitations of using the subdivided time series technique in one or two cities can be reduced by the addition of nonpromotion or control cities. The assumption underlying this technique is that all factors affecting sales, except advertising and promotional activities, will change at the same time, in the same direction, and to the same extent in the test and control cities. If such assumptions can be made, then differences in sales, corrected for any original differences in sales level, between the test and control market can be used as a measure of the effectiveness of the promotional effort.

The proper use of this technique entails the grouping of cities in matched pairs and then randomly selecting one city from each pair as a test city. To be most useful, each control city should be comparable in major respects to the matching test city in order to reduce the number of variables which are likely to confound the results. If several matching control and promotion cities possibly distributed regionally about the Nation could be used, the results would be still more reliable and the need for statistical adjustments reduced to a minimum. Of course, when the test and control city technique is used to measure the influence of promotion, some variables do not necessarily remain constant or change to the same degree in both groups of cities even for a short period of time. As "insurance," the collection of data bearing on these factors to the extent available during the experiment, in both the test and control cities, will permit statistical adjustments to be made, if necessary, using multiple regression techniques, and will add materially to the reliability of the results.

Multiple regression analysis: Regression analysis is the mathematical determination of the functional relationship between two or more series of data.

The basic assumption underlying this technique is that functional relationship between causative factors and sales determined for a base period continues to hold except to the extent by which they were changed by the promotional effort. This technique can be used when accurate data covering a nearby time period of sufficient length is available and there are logical reasons for including each of the independent variables (causative factors).

This technique was used in the Cleveland lamb study, and in evaluating a nationwide special promotional campaign for frozen concentrated orange juice in the fall of 1959.

In evaluating the sales effectiveness of the recent special promotion for frozen concentrated orange juice, multiple regression analyses were employed based on Historical Monthly Sales and Price data for frozen concentrated orange juice, other citrus juices and ades, tomato juice, prune juice, and grape juice.

The analyses of these data showed that 92 percent of the variation in monthly sales of frozen concentrated orange juice was associated with changes in the average monthly retail price of the product. The average monthly sales and prices of other juices and ades did not significantly affect the sales of frozen concentrated orange juice.

The sales-price relationship of frozen concentrated orange juice for the period September 1954 through August 1959 was determined and used to estimate monthly sales without promotion for the following 12 months. Actual monthly sales during the promotional period (September-November 1959) and post-promotional period (December 1959-August 1960) were then compared with the estimated sales for corresponding months to determine the effectiveness of the program. This comparison revealed that increases in sales volume and in consumer expenditure of about 13 percent were associated with the promotional program during the promotional period (September-November) and through March 1960 of the post-promotional period when some coupons were still being redeemed.

Returns to the promotional campaign were estimated by comparing the cost of the promotional program with estimated losses in sales revenue if price reductions had been employed in lieu of the promotion to obtain an equal sales volume. It was estimated that losses in revenue would have amounted to \$18 million if prices had been reduced sufficiently to move the same volume of juice. The total cost of the promotional campaign was approximately \$4 million; thus, the return to the campaign was estimated to be \$14 million at the retail level.

Controlled rotational experiment: In light of the difficulties in obtaining enough financial support to obtain the required number of test and control cities, and the inadequacies sometimes found in historical information on the variables affecting sales, we conducted an interesting piece of research on apple promotion in cooperation with the Washington State Apple Commission, using a rotational design.

This work was carried on in six cities well distributed in the Midwest, using three treatments: (1) A general health promotion theme, (2) an apple use promotion theme, and (3) no promotion.

In selecting the cities, the following criteria were used: (1) 50,000 to 125,000 in population, (2) no overlapping of television programs sponsored by the Commission, and (3) markets in which the Commission had not previously promoted apples in an active manner. Additional criteria were used to obtain cities which could be segregated into three pairs. These were that each pair of cities should have a comparable source of supply for apples and citrus fruits and be comparable in per capita income. The cities were paired to facilitate the use of the double changeover design used in this test. One city of each pair is receiving one treatment sequence while the other is receiving the opposite treatment sequence. Each city will receive each treatment at least once.

In addition, the third time period was repeated to increase the precision in measuring the direct and carryover effects of the treatments. This provided a basis for estimating the combined direct and carryover effect of each treatment when replicated over time.

For measurement purposes, audits of sales and prices of Washington State apples were made in each city in 12 to 15 self-service retail food stores with annual sales volume of over \$500,000. These stores were estimated to represent 60 to 80 percent of the retail food store sales in the test cities. Data were obtained also on all quantitative variables known and suspected to affect the sales of Washington State apples. These include the price, display space devoted to apples from competing areas and to citrus fruits, bananas, and pears, the amount of newspaper and other promotion media devoted to these products, the amount of in-store promotional materials used, the size and quality of each fruit, the dollar volume of produce sales, the number of customers patronizing each store, and employment conditions. These data were used to correct any unusual conditions which occurred in one test city but not in the others and which the design did not equalize. For example, severe snow storms on successive weekends affected customer traffic in three of the cities.

Certain variables associated with apple sales in individual cities, such as race and religion, and with time periods such as general seasonal trends, are assumed to be constant.

The findings of this study revealed that sales of Washington State apples were 32 percent greater for the apple use promotional theme and 21 percent greater for the general health promotional theme than for comparable periods of no advertising and promotion. Total apple sales were 20 percent greater for the use promotional theme and 9 percent greater for the general health promotional theme than for comparable periods of no promotion. The presence or absence of promotion during a 4-week period did not significantly influence sales during a subsequent 4-week period.

The analysis of sales data for bananas, grapefruit, and oranges showed that the promotional campaign for apples did not adversely affect the sales of these fruits.

Consumer panels: Thought has been given to the use of one or more consumer panels in selected cities as another approach to evaluating the effectiveness of promotion programs. Consumer panels, as most of you know, are composed of a representative sample of families who report weekly volume of purchases of selected foods and nonfoods by brand and prices paid. Such an approach appears rather promising, especially if cities with such panels could be paired as test and control cities. With the consumer panel technique, it might be possible to measure the long-term as well as the short-term effects of promotion. As you know, many promotional campaigns have the objective of creating a favorable "image" in the minds of consumers and are not expected to reach that goal over the short run. The researcher would have consumer purchase and price data available which would indicate family buying patterns over a long period of time prior to a promotion campaign and after the campaign was undertaken. This approach, though rather expensive, might be financially feasible if the activities of existing panels and those contemplated by State universities and other organizations could be coordinated for specific commodities.

CONCLUSIONS AND RECOMMENDATIONS

of Work Group on Administration

In discussing the changes taking place in agriculture, one speaker emphasized that the drive for efficiency is the outstanding motivating force behind these changes. Three reasons why this drive may be expected to continue are: (1) To combat inflation, (2) to move abundant production into consumption; and (3) to attain competitive advantage in a quest for profit.

The organization and structure of agricultural markets are undergoing changes that involve the elimination of certain functions such as exchanges of ownership and shifting of places where functions are performed, such as packing and packaging. As these changes develop there will be an effort to make less use of marketing services such as market news, grades and standards, inspection and grading, unless these services are adapted to meet current methods, problems, and needs.

Examples of types of activities one State has been carrying on to keep pace with changes taking place in agriculture were cited by another speaker. The discussion that followed centered around how these various changes that have taken place and will take place affect the farmer. Considerable concern was expressed in the possibility that increased efficiency on the part of producers, processors, and marketing firms was resulting in cheaper food for consumers at the expense of producers. Concern was also expressed at the tremendous buying power being placed in fewer and fewer food merchandisers and how producers could combat this with selling power.

The question was also raised as to whether it is wise for a supply cooperative to enter the field of marketing with more than one group of producers with like interests. Several examples were cited of unsuccessful ventures by cooperatives to service producers of several different commodities, and the success of other cooperatives who concentrated on servicing one group of producers producing a like commodity.

The following conclusions were reached by the group as to what the State department of agriculture people could do to aid in meeting the challenge of a changing agriculture:

1. Lend technical assistance to help develop a more efficient marketing program whether it be through cooperatives or corporations.

2. State departments of agriculture might, in cooperation with State colleges, conduct management training courses.

3. Marketing people in States should be thoroughly familiar with the research information available in their field and should provide the action programs to carry these results to industry.

4. State departments of agriculture might do well to examine their regulatory assignments to see if they aren't inadvertently impeding desirable changes in the marketing structure.

An effective presentation was made by a State representative in portraying the responsibility of State departments of agriculture in carrying out effective marketing programs. Seven one-word steps were used as a summary of this talk:

1. Stimulation--new ideas.
2. Evaluation--defining problem area.
3. Resources--funds, commodity organizations, and personnel.
4. Vision--total area; total opportunity.
5. Incentive--dollar sign a potent incentive.
6. Cooperation--talent available from other sources.
7. Effectiveness--measurement of value--success.

When combined, the first letter of each word spells SERVICE.

In his talk on "Management Principles to Follow in Organizing and Conducting Marketing Service Work," the speaker compared a marketing service team to a good football team in that the members have to be suited for the position, and be well trained, aggressive, cooperative, and efficient. Success of marketing programs is directly related to the time spent in proper planning and effective execution. Efforts of personnel should be concentrated on the current problem until the objectives have been accomplished. Continuous operation in marketing is important, as is frequent evaluation of the progress being made. Marketing service work should be coordinated within a State so that the administrative responsibility rests with one person.

"Food companies are in business to make money and good ideas make money," stated another speaker. Ideas can result in (1) new products or services, (2) lowering costs of manufacturing and marketing, and (3) increased acceptability of products or services.

An outstanding example of marketing service work conducted by a State was presented by a representative from Vermont who discussed the milk flavor program in that State. According to the Vermont Dairy Commission, the retail sales of fluid milk in Vermont have increased 11 percent in 4 years without any increase in population, due largely to the milk flavor program.

Producers pay for inefficiency in marketing, and market service programs must be designed to assist producers and commercial firms to improve facilities was the conclusion reached by the group after hearing a report on measuring the effectiveness of a program to improve grain marketing facilities. The effectiveness of these service programs can be measured through surveys to determine facilities available and their ability to handle grain efficiently. The effectiveness of a program can also be measured by the results of the efforts and also an evaluation of the existing programs to determine (1) if we are solving the problem, (2) if we are flexible enough to meet trends and changes taking place that bring new problems, (3) if we are revising our objectives and methods of conducting market service programs to accomplish the right results.

After outlining research developments in evaluating the effectiveness of promotional programs for agricultural products, another speaker pointed out that the primary purposes of promotion programs are to enhance sales and improve price. Some of the problems involved in evaluating promotion programs are:

1. Short-term effects.
2. Long-term effects. More difficult to evaluate because of variables that develop over a period of time.
3. Measuring returns against promotion expenditures.
4. Development of new and improved tools for effectively isolating and measuring the effects of promotion of a specific product.
5. Variables which must be considered are consumer income, seasonal influence, price, quality, supply, consumption trend, substitute products available, and so forth.

PROMOTION OF AGRICULTURAL PRODUCTS AND MARKETING PROGRAMS

Work Group Sessions

IMPROVING MARKETING THROUGH PUBLICITY

William C. Crow, AMS
U. S. Department of Agriculture

Marketing is improved by bringing about desirable changes--preventing deterioration and spoilage, building the proper kinds of facilities where they are needed; getting the right kinds of equipment and marketing practices used; obtaining the adoption of proper containers, grading, and transportation; eliminating unnecessary operations and improving the efficiency of others; showing growers how to market their products so as to get the best return; expanding outlets; and keeping the marketing system abreast of the times. To bring about these improvements is the reason for having marketing service programs. Under such programs we work with people to determine what marketing changes are needed and persuade them to make them.

We cannot do marketing service work locked up in a room. We must work with marketing firms and agencies. In doing this we are taking research results and the best known marketing practices to the people who can use them. Publicity is one of the principal means of accomplishing this. Publicity is "any action--spoken, written or printed--which advances the interest of a cause." The cause in this case is the solution of marketing problems.

If we are trying to reduce deterioration and spoilage, we must convince people of the need and importance of doing so. We must show them how to proceed, what methods to use, and what results should be expected. We do this by talking to individuals and groups--face to face, by radio or television--by writing something which they will read, an article or a booklet--by using slides, movies, models or specimens of their commodity.

Similarly if we are trying to improve facilities, get certain types of equipment used, change marketing methods, induce people to use certain containers expand outlets, or make any other worthwhile change, publicity is a major tool in doing it. If publicity is so important to successful marketing service work, it is imperative that we know how to use it.

The first requirement for effective publicity is knowledge of what one is talking about. If a marketing specialist does not know something worth telling, he is really not a marketing specialist, and should keep quiet. Second in importance is the knowledge of how to speak, write, prepare and use visual aids. Knowing what needs to be done and how to do it won't get the job done without imparting this knowledge to the person who can take the action. If the knowledge of subject matter and skill in speaking and writing cannot be found in the same person, perhaps the marketing specialist and information specialist should work together. A third essential of good publicity is good contacts with industry, newspapers, magazines, television, and radio.

To arouse increased interest in a program and to get more widespread action, it is necessary to show the results gained to date and the benefits they have brought. Such publicity will stimulate other people to act. The persons who need to be reached may be farmers and farm organizations, marketing firms and groups, and, where public policy is concerned, legislators.

One of the weakest aspects of the matching fund marketing service program, and perhaps of most marketing programs, is the failure to make effective use of publicity--spoken, written or printed--as a tool in getting the job done. This would be understandable if the persons engaged in these programs had nothing to say, if they did not know what improvements are needed and how to make them. But this is seldom the case. We have good programs and good men. Why don't we push them? Why don't we maximize the public benefits to be derived from the work we are doing by proper use of publicity? By so doing the returns per dollar expended would be greatly increased.

The purpose of this work group is to make marketing specialists and information specialists more aware of the value of publicity as a marketing tool, expand their knowledge of how to use it, and try to stir up their enthusiasm so they will use it.

INFORMING THE PUBLIC ABOUT GRADES

R. B. Wilson, Purdue University

Consumers who seek to evaluate food purchases in the marketplaces are often confused. They are faced with over 5,000 items in the modern supermarket, and about 200 new food products are appearing each year. Some of the products in the stores have grade marks, some have descriptive statements about the product, and some have well-known brand names. Prices and weights vary.

In this confusing situation, there is a need for a better understanding of grades and how they may be made more useful as a guide to purchasing farm products but it is difficult to inform the public about them. There is also a need for a better understanding of grades and their usefulness at the wholesale level and for an updating of grades.

At the wholesale level, large buyers feel that many of today's standards are too broad for today's specification buying. These buyers point out that United States choice grade in beef sometimes covers three grades in actual buying practice--top, medium, and low choice. They feel standards are too broad for many meat grades and several other agricultural products. We need to keep in mind that 70 percent of today's grocery sales are made by supermarkets, and this percentage is expected to increase so this market cannot be ignored. These buyers want more narrow specifications. They feel that some grade standards are so broad they fail to yield the uniformity of product needed by the retailer if he is to build his own label.

At the retail level, it is difficult to inform consumers about grades and how they can be useful buying guides because of several things. As was pointed out, there are thousands of items in a foodstore and the terminology in grades is confusing to the average shopper. Agricultural Handbook #157, "Grade Names Used in United States Standards for Farm Products," February 1960, lists several pages of grade names and the top grade varies between different commodities. Some are called "extra fancy," some "fancy," some #1, some "Grade A," some "prime," and some "choice." This leads to confusion in the mind of the shopper. Grades are developed by the trade and sometimes fail to reflect the consumers' desires. Consumers don't know the meaning of different grades, and retailers feel there is little point in advertising by grades except for a few items where a grade name has some prestige, such as U. S. choice.

Thus, it is a big job to try to inform the public about grades, especially when there is little reason for retailers to advertise by grades. However, grades should not and will not be discarded just because of the difficulty in informing the public about them and because some of the grade standards need revision. Grades have an important function and there are several valid reasons for using them in the marketing of agricultural products:

1. Units of a given product of heterogeneous values are classified into groups of more uniform value. Grades furnish a yardstick for measuring variations in quality, and their use has made possible a basis for satisfactory long distance dealing.

2. They are indispensable in the settling of disputes between buyers and sellers.

3. They form the basis for market news prices and are necessary to permit an intelligent comparison of market prices.

4. They permit more effective distribution of products by separating them into various grades. Market demands vary in different areas and effective distribution consists in finding the market that will give the greatest return for the grade of product offered for sale.

5. They serve as a basis for advertising. Advertising is without meaning and useless unless backed up by products that are uniformly graded and packed.

6. Grades stimulate better methods of production and marketing because they help growers and shippers correct their mistakes. They reflect consumer preferences back to consumers.

It is desirable to help the shopper make more use of grades in marketing. This is a tremendous task. Assistance can be given by consumer marketing agents, home demonstration agents, food page editors, and others in the food field. They are quite helpful in disseminating information if given the proper material.

While it is desirable to inform the public about grades, it appears more desirable to stimulate growers and marketing agencies in improving the grading system so it better meets the needs of today's buyers and consumers. The October 22, 1960 issue of the Packer quotes George R. Grange, Deputy Director, Fruit and Vegetable Division, U. S. Department of Agriculture, as saying that **U. S. grade standards are at the crossroads**. He predicts that unless the produce industry starts rewriting its U. S. grade standards, and soon, it must be prepared to use present grade standards less and less as a measure for buyer-seller agreement and see them relegated to the vague area of merely setting broad limits on variations in quality. Furthermore, unless the industry does move quickly in the direction of setting up more realistic and useful standards, it is going to find buyers moving more and more into the business of setting up their own standards and buying on the basis of those standards and not U. S. standards.

We are aware of the controversy over grades in other areas. It is hoped that public appreciation of the usefulness of grades in marketing can be stimulated and that growers and marketing agencies will take a more active part in improving and using grading systems.

USING PRICE INFORMATION AS A PUBLICITY TOOL

Ed Fain, Colonial Stores Incorporated

While price is not always the deciding factor in a consumer's choice of a specific commodity, it is a definite consideration. Consumers generally relate price to the near term trend in that particular commodity and to a comparison with other like commodities.

Since price is a consideration in the choice of commodities by consumers, State marketing services can assist in the movement of certain commodities by publicizing particularly attractive prices. The prices publicized should be retail prices since the consumer deals at the retail level in the marketing system.

The best source of information on retail prices is the retail store in the market to which the publicity is being directed. Contacts which will be productive of authentic information on retail prices can be developed with retail sources. A complete understanding of the objectives of the publicity program on the part of the retailer is an absolute necessity to the development of these contacts. The retailer must understand that the information which he furnishes is to be held in confidence and used only to promote increased consumption of agricultural products.

There also must be an understanding on the part of the various media of the objectives of the program.

Price information should be disseminated generally on a local market basis.

Most daily newspapers and many weeklies publish food sections at least once a week and they usually welcome news stories about food to complement the extensive food advertising which they carry in these sections. Radio and television are becoming increasingly important as food advertising media, and they too welcome information about food to complement this advertising.

THE USE OF PUBLICITY IN REDUCING MARKET GLUTS

John L. Matheson
New York Department of Agriculture and Markets

The market glut is perhaps one of the most disrupting marketing problems facing agriculture today. Because we do have a complex national marketing system, a severe glut in any given area can be responsible for an unbalance in markets across the Nation. If given the opportunity to run its own course, the market glut can erase the life savings of producers and handlers of the product, and even throw an entire community into a serious economic panic.

In view of the acute devastation often associated with market gluts, it is little wonder that those affected often turn to government for help. In New York we have recognized publicity as a low-cost, easily initiated, and effective marketing tool to help reduce gluts by increasing consumer demand for the product concerned.

Although there is no blanket formula for applying a sound publicity program to help eliminate or lessen the disastrous effects of a market glut, we have drawn a set of principles for a guide. We can all agree that the step by step approach to a program will vary considerably, depending upon resources available, individual characteristics of the product, severity of the glut, and many other factors. However, there must be a starting point, and we feel that a basic three-point plan has been effective in the past and will continue to serve as a guide for similar situations in the future.

The three principles we follow are: Recognition, organization, and action.

Although it is possible to have a publicity or promotion staff capable of going into action on short notice, the degree of success of any publicity effort will be reflected in the amount of time spent in planning the program. To this end, a few months, or even a few weeks advance notice of a possible market glut, can mean the difference between a so-so effort and a successful publicity program.

This recognition phase of our plan for publicity is a matter of communications and good habits. In our department we try through the vast amount of information and material coming to us from such sources as market news, statistics, crop reporting service, and others, to analyze conditions so that oversupplies can be detected early. By regularly interpreting this information for signs of a pending market glut we can usually gain valuable extra time. While this particular phase of the overall program eventually becomes almost a reflex action, I think the importance of it is evident and I re-emphasize the point that early recognition and careful planning set the pace for success or failure.

Once the possibility of a glut appears, we move automatically into the organization phase of the overall publicity program. Organization is the keystone and should be the most important single function of a department of agriculture.

In New York the very first job we tackle in getting all our ducks in a row is to meet with industry organizations of the product or products affected and coordinate their resources in a common effort. Too often petty jealousies of several organizations can lead to duplication of effort, conflicting interests, and in general an almost unsurmountable obstacle to the success of the overall program. While this statement may be a bit strong, it does emphasize the importance of the role of the department as coordinator.

A preliminary meeting with industry groups should be held first, to establish and document the problem; second, to suggest the value of a composite committee to represent all segments and factions of the industry; and, third, to request that a letter be sent to the Commissioner of the Department of Agriculture setting forth the facts and the seriousness of the situation, along with a formal request for help.

The official letter from industry serves many useful purposes. It is valuable for enlisting the aid of other specialized agencies and organizations that can play an important part in a successful program. As an example, during our crash egg program in 1958, we were able to receive the direct aid of the New York State Broadcasters' Association because the industry letter, along with an endorsement by Commissioner Wickham, established a critical egg marketing situation which justified their use of free public service time to publicize eggs. This amounted to thousands of dollars of free publicity over radio and television.

We do not intend, with our small promotion staff, to carry out a full-scale publicity program by ourselves. In the first place, we are short on funds and specialized talent to do art work, radio, television, motion and still photography, featured women's material, and a host of other publicity functions. In the second place, if we did have the resources we simply wouldn't have enough arms

and legs to get all the work done by ourselves that must be done. We have found, however, that by cooperating closely with other State agencies we can often obtain the services of the professional and technical talent and facilities necessary to undertake and carry out a job that would be otherwise impossible.

The point we wish to make here is not to stress our limitations, but rather to emphasize the importance of our position as a coordinator and organizer.

State agencies that have been helpful to us, and ones you might consider using include: Departments of Commerce, Education, Social Welfare, Mental Hygiene, Correction, Health, and the State Purchasing Agency. You might be interested to know that New York State institutions feed and house more than 175,000 people, and these can all be considered consumers.

Last but not least are the industry groups themselves. We have been amazed and, of course, pleased with the terrific contributions industry groups can make when they are properly organized and given adequate leadership and guidance. This goes back to my earlier statement about bringing together all segments and factions. If you fail to do this you may, unknowingly, leave out the group that could make the greatest contribution. Our most successful programs have been the product of careful planning and cooperation on the part of government agencies, industry, and consumer groups.

While I mentioned before that organization was the keystone of our publicity program, I will mention just a few items of our third and final phase, action, the carrying out of plans laid through organization.

Various forms of communications must be used to see that all segments are informed and encouraged in order to get full cooperation from everyone, especially food handlers. Our practice is to acquaint the trade with the program and invite their cooperation and participation, through a letter from industry--and one from the department of agriculture. These letters are followed up with market service work by department specialists and by industry, and even consumer groups where possible. When you have all of these groups cooperating as a unit it is easy to see how effective a program can be.

But to be more specific, let me cite a few examples of things that were done by industry and the trade during a recent promotion for Long Island potatoes:

1. Growers and shippers entertained 600 buyers, handlers, and representatives of allied industries at a fact-finding get-together, acquainting them with the seriousness of the situation and seeking their cooperation and help at an approximate cost to industry of \$4,200.

2. The Ladies Auxiliary of Long Island Farmers Institute sponsored a Potato Blossom Ball which raised \$6,000 for use in the promotion program.

3. Industry purchased exhibit space at the New York State Fair, furnished potatoes for distribution to contest winners, and supplied personnel to help staff the booth at a cost of approximately \$2,000.

4. Two chainstore organizations prepared and distributed more than 250,000 flyers featuring Long Island potatoes, and all chains cooperated in varying degrees.

5. A tour of the potato industry was sponsored for more than 30 feed editors and broadcasters.

As you can see from these few examples, industry and the trade made many outstanding contributions to help avert a potential marketing crisis for Long Island potato producers.

Three basic principles that we in New York follow for applying a sound publicity program to help eliminate or lessen the disastrous effects of a market glut are recognizing the possibility of a glutted situation as early as possible; organizing groups, agencies, and individuals to form a strong and united front; and actively carrying out the program.

While these three points, recognition, organization, and action have proved to be important tools for us, they are all predicted upon cooperation. Whenever assistance is requested, we always say: The amount of assistance we can give will depend on the amount of cooperation we can get.

SECURING PRODUCER SUPPORT OF PROMOTION PROGRAMS

William E. Black, Florida Citrus Commission

Publicity is only one part, and I might add a relatively small part, of the package called "promotion." The Florida Citrus Commission does not have a publicity department, even though last year the Commission spent over \$6 million to promote Florida fresh and processed citrus. This does not mean that publicity is unimportant, nor that we did not engage in it. Our publicity was carried out by the Public Relations Department (which is another part of the promotional package).

We used publicity to create an awareness by the trade and consumers of our Florida citrus products and the research, advertising, and merchandising we put behind our products. Although publicity and public relations are in and of themselves relatively weak motivators of the trade and consumers, they do assist us and the Florida citrus industry to get more mileage out of our other promotional activities.

The Florida Citrus Commission engages in two levels of public relations and publicity. Internally, a staff of three keeps the trade and public informed of the Florida citrus crop situation, the Commission's accomplishments, and what all this means to the trade and consumers. Externally, public relations and publicity agencies are retained. These hired organizations render a specialized type of service to food editors, medical doctors, dentists, nutritionists, dieticians, and public institutions such as schools, hospitals, and so forth. We find that we need specialized personnel for these specialized fields and find it cheaper and more efficient to engage competent agencies to perform this type of service for the Florida citrus industry. About 4 percent of the

Commission's budget is spent for public relations and publicity, but most for the external type.

In addition to public relations and publicity, promotion consists of advertising and merchandising. The Florida Citrus Commission last year spent 64 percent of its budget on advertising and another 21 percent on merchandising. The balance went for research and administration. Our advertising is beamed at consumers. It pulls people toward our products. Merchandising, on the other hand, is trade oriented, it pushes our products toward the people. More and more agricultural groups are rendering one or both of these services.

The continuous rendering of promotional services by commodity groups to the trade is becoming more of a necessity because of the number of new products that continually enter the market to compete with any one farm product and with the increasingly large number of items from which the consumer can select in a modern self-service supermarket. Producers of farm products must give serious consideration to engaging in promotions if they hope to sell their products and services in quantity and at a profit. I think agricultural producers should promote their products for several reasons.

1. The retail structure is changing. Fewer stores and fewer retailing firms have brought about an increased concentration in marketing power. Although the vast majority of the retailing units are unaffiliated independents, they account for only about 15 percent of the national retail sales volume. The balance of the volume is handled by corporate chains, voluntary and cooperative groups whose procurement and merchandising procedures are generally centralized, more exacting, and different from unaffiliated independents. Because 85 percent of the retail volume is controlled by only 1,250 firms the status and role of the intermediary handler has lessened. In most markets only a handful of men control the competitive relationship between retailers and their suppliers.

2. Retailers are receiving promotional assistance from suppliers. In a recent survey, I found that all multistore retailers receive merchandising assistance from suppliers, although not from all suppliers. Fresh vegetables, as a group, offer the least merchandising assistance to the trade. Groceries, especially the nationally advertised brands, offer the most. What is important is that some merchandising assistance is available to the trade for all lines of food, and this in turn affects the competitive position and the shelf-staying-power for those products not promoted.

3. The trade expects the supplier (producer) to assume part of the responsibility for moving goods from the shelf to the customer's shopping cart. The trade is interested in maximizing profit and therefore takes an impersonal but calculating view toward any one product. The trade is interested in the total flow of goods to the shopper's cart while agricultural industries are interested in the sales velocity for their particular line of goods. This specific objective can be achieved best through promotional activities generated by producer groups themselves.

4. The trade now puts its emphasis on selling, not buying. This means that the basic decisions are being made by merchandisers, not buyers. Under this sort of organization the producer is being asked to satisfy the merchandiser

who reflects consumer needs, not the head buyer. This, of course, leads to a different, more exacting pattern or prescription marketing, and the responsibility of the producer must extend beyond the country selling point.

5. Although the trade has no firm policies with respect to cooperating with the supplier's merchandising program, they do have distinct preferences as to type of promotional assistance desired. Most preferred services are: Attractive point-of-purchase material, building displays, conducting in-store demonstrations, and prize incentive programs to stimulate displaying and sales.

According to my recent study, food retailers obtained 63 percent of their point-of-purchase material from suppliers. Produce departments, however, obtained over 80 percent of their material from suppliers. This means that the retail trade is relying on suppliers for the bulk of the material used to stimulate produce purchases. Any commodity not supported by adequate and attractive point-of-purchase material cannot get the space and the dynamic floor merchandising by retailers as products that are so promoted. Properly displayed point-of-purchase material attracts tie-in advertising effort from the trade, and leads all other aids in motivating the trade to advertise.

Displays, demonstrations, and prize and premium contests are proven effective stimulators of sales. The Florida Citrus Commission has provided display service to 3 out of each 4 trade factors, demonstrations to 2 out of 3, and prize programs to 3 out of 5. Each one of these activities is costly, in great demand by the trade, and helpful to the Florida citrus industry. Through such services the Commission can motivate store personnel to put special effort toward on-floor merchandising and advertising of our Florida citrus products.

It is needless to say that the trade prefers to be serviced through personal calls rather than the mails.

6. The trade is primarily interested in securing either financial assistance or manpower from the supplier. Financial assistance is used for such things as cooperative advertising while manpower is used for displaying and store servicing. So far, agricultural groups have not offered financial promotional assistance to the trade, but this could change in the future.

7. There is no such thing as a permanently established product in the market. Today, enormous amounts of money and effort are required to establish a product in the market, but any established product requires a continuous program of promotional support, primarily by the supplier, to keep its place in the market or to strengthen its relative competitive position.

How then do you secure producer support of promotional programs? By giving the hard facts of marketing to the producers. Farmers must know that the Nation's food retail business is quite impersonal and constantly changing, that the retail margin is only part of the consumer price and the producer is expected to assume part of the responsibility for the movement of his goods from the shelf to the shopping basket, that the retailer has more items over which to spread his risk, and earn a profit, than the producer, and that the retailer can drop one item this week and next week be offered 10 new items. Farm commodity groups rise and fall depending upon what happens to their product in the marketing system. They should, therefore, have an interest in their product after it leaves the farm. They can increase consumption of their product and the competitive position of their product through promotion.

ENLISTING INDUSTRY AID IN MARKETING AGRICULTURAL PRODUCTS

A. J. Rhodes, Louisiana Power & Light Company

In order to secure the cooperation of a businessman, it seems to me that first one must win his confidence. A professional public employee may find it fairly simple to get a "look at the books" in his initial visit. What he does with this information may determine the attitude of the businessman toward all future research workers who are sincerely trying to come up with the facts. Businessmen sometimes feel that they have been betrayed by public employees who, as one merchant related to me, "Take this information and beat us over the head with it." We find that it is used both in and out of context, and the businessman feels that none of the results is to his advantage.

To secure the cooperation of the businessman, I think you need to understand some of his thinking. This procedure of putting yourself in the other fellow's shoes is called empathy, a term that needs wider use the world over. Beset as he is by competition, more frequently called "cut-throat competition," the businessman of today operates under a great deal of pressure. Nearly every day brings an appeal for a contribution of funds to a "worthwhile cause" and labor problems become more difficult all the time. Taxes are but a part of the reason for his ulcers as he realizes that he is not only a payer of taxes, but is now a rather large-sized collector of taxes. There are 151 taxes on a single loaf of bread. As a taxpayer the businessman figures that he is helping to pay the salary of the very public employee who may come into his establishment to do market research or promotion.

The marketing man who seeks his support should understand this situation before his first call. If he is seeking to build a new market he would be well advised to sell his idea to the businessman on a basis of increased profits. We should not forget that ours is a capitalistic system and that the profit motive is an honorable one. Many well-meaning, sincere, and devoted public employees have found a spirit of kinship existing between their outlook on life and that of a nonprofit enterprise. Because of this they have, I believe, in good faith promoted the cause of nonprofit enterprises, particularly in the field of agriculture. They do so with the explanation that they are helping the farmer by saving him money on taxes that he would pay, thus helping in their small way to kill the goose that lays their own golden egg. This movement has spread from agriculture to retailing to manufacturing.

I think we can sum up this discussion by saying that the marketing specialist who would seek the cooperation of the businessman must come forth with a sound program of increased profits or at least with a program that offers the potential of increased profits. To sell his idea he needs to understand something of the viewpoint of the businessman and he should never, never violate the trust that one has placed in him. Finally, he should refrain from promoting unfair competition from a tax-free enterprise that not only threatens the very existence of private enterprise but hastens the day when this country could probably be classified as socialistic, which is just one step away from the most terrible government system known to mankind--Communism!

ADVANTAGES OF FINANCING PROMOTIONAL ACTIVITIES THROUGH
STATE MARKETING ORDERS

Albert Brown, Colorado Department of Agriculture

In Colorado we have four active marketing orders, each of which supports some type of promotion program. These orders are the (1) Mesa County Peach Marketing Order, (2) Colorado Potato Marketing Order, (3) San Luis Valley Lettuce Marketing Order, and (4) Colorado Wheat Marketing Order.

The Peach Marketing Order has been in effect since 1939, and has always supported an advertising and promotion program, financed by an assessment levied on all peaches marketed. This program has been more of the direct advertising type of program.

Under the Colorado Potato Marketing Order the State is divided into three areas, each having its own administrative committee.

When the Colorado Wheat Marketing Order became operative in May 1958, we began to get into the big league in promotion work. As most of you probably know, the Wheat Administrative Committee of Colorado, in cooperation with the Wheat Commissions of Kansas and Nebraska, have organized and incorporated The Great Plains Wheat Marketing Development Association. Since that time, North Dakota has established a Wheat Commission and is a member of the Great Plains. During the present fiscal year, the Great Plains has a budget of around \$500,000 mostly for promotional work, 18 percent of which was furnished by the State of Colorado.

Lettuce producers in the San Luis Valley supported a modest advertising and promotion program for the first time during this year's marketing season.

All the funds used by these four producer groups were raised by assessments levied under the authority of the existing marketing orders. Under the Colorado Marketing Act, the administrative committee of the Marketing Order plans the promotion programs, prepares the proposed budget, and requests the Commissioner to issue an assessment regulation to raise the necessary funds. This gives the assessment the same status as any tax levied by any tax raising unit of State government and makes the State responsible for its collection.

In Colorado we like this method of raising funds for promotional activities perhaps because it is the only one which we have used to any great extent. Here are some of the reasons why we like this method.

- A. The producers of the commodity, through the administrative committee and their manager, must assume a major portion of the responsibility for the promotion program. They must make the following decisions:
 1. Whether or not they need and want a promotion program.
 2. What type of program they want.
 3. How much they wish to spend.

- B. Once the amount of the assessment is agreed upon and the regulation issued by the Commissioner, the availability of funds is assured and firm commitments can be made.
- C. Because this source of funds is always available, a certain amount of long-range planning is possible.
- D. Due to the fact that in the final analysis the producers themselves actually control the purse strings, these programs must produce results.

We must admit at this point, however, that there are some drawbacks connected with this method of raising funds for promotion programs. Some of these drawbacks may be true of other methods.

- A. We find it difficult to keep all the growers informed as to what we are trying to do, and what, if anything, is being accomplished.
- B. The sometimes wide variation in yield from one year to the next presents problems in budget making and influences the producers' enthusiasm for such programs.

CITY AND COUNTRY NEWSPAPERS - HOW THEY CAN HELP YOU

Marjorie A. Gibbs, Michigan Extension Service

It seems to me that we could talk for hours about the subject which has been assigned to me today--"How City and Country Newspapers Can Help You." But I'm afraid that if we discussed it as it is neither the newspapers nor I would be of much help--for it appears to me that the title disregards the heart of the matter. The basic problem is how we can render assistance to the newspapers, and do so consistently, in order to expect the newspapers to help us!

There are dozens of definitions for public relations, so I'm not going to attempt to define it except to say that I think it includes all different kinds of contacts which we have with all the publics we are reaching. For example, no two newspapers or local situations are the same, so we could never generalize on just what the papers want in the way of contacts or information. I think we can say that we have to gear our plans to the demands of the particular papers or city in which we work.

Specialists or professional people are naturally enthusiastic about their subject, or they should be. They're sold on what they're writing, what they're selling, and too often they feel that everyone else should have just as great an interest in it. But unfortunately this is not the case and that's why it's so important that we get to know the individuals at each paper--what kinds of releases they prefer, how these should be submitted to them, and if there are other people on the papers who might handle more specialized information. I don't have to tell you that the main interest of any newspaper editor is in obtaining information which is news, which will be of interest to a substantial portion of his readers. Media representatives have told me that one of the things they dislike most in public service representatives is that they often demand space or time because they feel they have valuable information to offer which everyone will want.

Once personal contacts have been made on the newspapers, with definite, well-organized plans in mind, and the representatives have been impressed with your ability to perform for them, the doors should really be easy to open. Newspaper people are busy people. So are we. If newspapers know us, know we have contacts with other people in our fields, and depend upon our accuracy and judgment, they'll begin to call us on special questions.

When we started our Detroit program, our food writers wrote occasional food market reports through irregular contacts with retail market representatives the Detroit Bureau of Markets, the Produce Terminal, and Federal market reporters. But now they use our office as a clearing center, they know we can get all the information from these sources with only one phone call from them. Sometimes we do have to go to extra lengths that may inconvenience us, but we are in a service business. I'm convinced that one of the basic rules in our work with newspapers is to admit it if we don't know all the answers, but have the sources to find those answers for them.

We still make regular calls upon our newspaper girls to see if we are sending the kinds of materials they want. Believe me, they have given a lot of constructive criticism, and some which I felt was not entirely valid. But I listened because they know their consumers well, and their editors, too. We think the space which we get from the three Detroit dailies, and an average of 20 area dailies and weeklies, is a priceless asset in our total program. Certainly no consumer marketing program has the budget to command an equivalent amount of advertising space!

We can also be "idea" people for our newspaper friends. They welcome any worthwhile ideas for copy or stories, particularly if they know they can depend upon us. We've made it a point to remain on equally friendly terms with all of the papers. At least once a month one of them runs some special article which we suggested or for which we gathered information, and they always quote us, give us credit, or suggest the readers write to our office for further information. One paper regularly has a slug in its ads which refers the readers to the market report on the women's pages. It's a fine tie-together.

And there is another "tool" which is often of value in this mutual service project. If we have offered some specialized information and have a related release which might be of interest to the readers, it often proves to be very helpful to the newspaper to be used as a mail check. We keep a tally of everything that has been offered through the individual papers, and the food writers in turn hand them in to their bosses.

I'd also like to go over very quickly what I think is the other half of this effort to be of service to our editors so that they in turn may be of help to us. How do we write for them? Writing is a form of communication which must be both accurate and clear. And these two factors are definitely different. We can judge our own accuracy, but the clarity depends on the reader.

Writing for other people is a difficult task. We tend to write to ourselves, in our own vocabulary, our own professional language. And our writing, our use of terms may be like a foreign language to some readers. Before we start to write in a specific area, I feel we should have some sort of an idea of how well our readers read, and if our writing will fit their reading ability.

I was very interested to discover that researchers have proved that adults, in general, read at a level about one grade below the highest grade completed in school. People who completed 8 grades tend to read at about the 7th grade level. Above the 10th grade, the difference tends to be two or more grades. In Detroit and the adjacent areas, the 1950 census showed the average education to fall between the 7th and 8th grades--which means the average reading ability would be the 6th or 7th grade level.

In measuring our writing for readability, sentence length, word difficulty, and human interest are the factors which are considered of most importance. Reader's Digest believes that an average sentence length of 17 words is about right for the average laymen. It makes for comfortable reading. Of course, there should be variation in sentence length. We should not concentrate on writing or speaking 17-word sentences. Variety adds spice to reading, just as it does to life.

I've heard comments that our vocabulary is one of the greatest problems with newspaper editors. Almost every business or profession develops a language of its own. Many of our words have highly specialized meanings which aid in communication within our profession, but are a barrier outside. And, some of the words we say or adapt--are meaningless. We sometimes wonder how specialists in some of our university departments really know what their co-workers are talking about.

One example was given to me as a typical word used by agriculture writers--a word which newspaper editors often dislike and few real farmers ever use. Unproductivity! this word has five syllables and you can imagine how difficult it would be to read a passage containing a lot of words like "un-pro-duc-tiv-ity." I've found that there are a great many unnecessary hard words which can be cut out without loss of accuracy, or perhaps we can just substitute an easy word for a hard one. Or maybe we should rephrase the sentence in order to get rid of the excess baggage and express our thoughts in another way.

The last point of importance is human interest--one which we can never forget for we are writing for the readers. What will they read--what are they interested in reading? People like to read about people. A scientific discovery is often much more interesting when the news tells of the effect it will have on people's lives. Personalizing a story may be used to show a reader that you are interested in him. It adds human interest. But, we do have to use caution when personalizing, too much may go in the other direction and repel the reader.

As simple examples of personalizing, use words like he, she, girl, man, folks, people, or simple statements or questions such as "You can take it or leave it," "It's unbelievable," or "What should be done."

By controlling sentence length and vocabulary and by making our writing as human as possible, we can accomplish our main purpose--to add clarity and interest to accuracy. Our readers will be able to understand what we write and hence will read it. But there's one more danger which we have to watch for. Readable writing may have a mechanical feeling, or it may have a patronizing tone, a feeling of "talking down." If we talk down, the reader will resent it.

And we have to remember that articles must compete with many others in that newspaper, in other newspapers, and in many magazines for a reader's leisure hours. He has to enjoy reading ours.

No matter how wonderful the city and country newspapers are to us, as individuals our interests are different from theirs and I'm sure we would never be completely satisfied. For instance, I wish that I could write more feature articles in the three Detroit daily papers. I wish they would often include more of the kinds of market information which I think is of most value in developing informed consumers and I wish we could write our own lead ideas. In short, I wish sometimes I had my own column to do with as I choose. But, on the other hand, I'm thoroughly convinced that through our information service to them the newspapers are performing a service to us and to the consumers we are trying to reach--to make them more satisfied, more capable, and better food shoppers.

NEWSPAPER CAN BUILD GOOD WILL FOR AGRICULTURE

Cosman Eisendrath
Editor, The Daily Herald, Biloxi, Miss.

Newspapers are always receptive to news that is prompt and of interest to their readers and this holds true of agricultural news as well as the other types of news.

Editors are quick to evaluate news and some of the criteria they use in these evaluations are simple and time tested--is it fresh? Is it accurate? How does it affect the readers of this newspaper?

Crop reports, poultry and egg production reports, planning, beginning and progress of agricultural programs, innovations in methods--statistics on these and other facets of agriculture are of interest to readers. If the statistics are local, if they pertain to the community in which the newspaper circulates, and if they are timely, then editors will welcome them and give them space in their news columns.

Publication of these and similar stories is one of the best ways of keeping the public informed about the happenings and events in agriculture. The newspaper benefits by carrying the stories, the readers benefit from the knowledge gained, and those in the field of agriculture benefit by having their stories before the public.

Even in areas and communities which are not predominantly agricultural, newspapers welcome news about happenings in this field.

What is the best way to take advantage of this receptiveness in newspapers? Contact the editor when you think you have a story of value and he will help you develop the story. For spot news, if it is important enough, the editor may assign a reporter and photographer to cover the event. In the case of more routine stories, the information should be compiled by someone in authority or with training and knowledge of the subject, and brought to the attention of the editor.

The Bureau of Commercial Fisheries of the Department of the Interior publishes in the Southeastern States a daily market report containing a wealth of information about the fishing industry. It contains market quotations, developments, trends, and promotional activities and is backed up by monthly and yearly summaries. We use some of this information continually through the year in news stories.

This type of publicity keeps the industry in the public eye and builds good will for it and its products.

The same thing could be done in the field of agriculture, which is a much broader field, and the results could be equally rewarding.

WORKING WITH CITY AND COUNTRY NEWSPAPERS

William P. Charron
Maine Department of Agriculture

We believe there is much more to working with our city and country newspapers than sending them our occasional agricultural releases and weekly market prices. Our publicity representative prepares his material simply and accurately, and the results are that the stories are used by all media.

Newspapermen have a job to do which is reporting the news, and to make their newspaper as interesting to the reader as they can possibly make it. In addition, the newspaper is in the business of selling advertising. At all times they respect their accounts and do whatever they can to make it interesting for them to purchase more advertising space.

In the State of Maine, we believe that having good working relations with newspapers, whether they are dailies or weeklies, is of great importance to the success of our programs.

In recent years, as we expanded our market services we soon discovered that our staff of marketing specialists were coming more and more in contact with newspaper folks. As our specialists were not newspaper writers and the newspapers did not always fully understand what we were attempting to do, we employed a publicity representative. This individual affords us a direct line of communication with all news media in our State. We have found that his services are a definite asset to our overall program.

The publicity representative is familiar with the requirements of the various Maine newspapers. He knows their styles of writing and understands problems peculiar to the firms involved. All releases are factual and are always written within the standards of strict integrity. On numerous occasions, he makes special releases for small weeklies or trade publications that do not have the necessary personnel for rewrite purposes.

Our marketing specialists work with the publicity representative, keep him informed about their activities, and utilize his services for personal contacts with the newspapers. Whenever we have meetings of our staff, we invite the

publicist and give him an opportunity to participate in the discussions. We have found that he is able to broaden his agricultural background by sitting in on the meetings, and that his suggestions often lead to more and better cooperation from the news media.

The specialists never talk down a competitor's product. If it is good, they give it proper credit and hope that ours will be as good or surpass it. This policy is most important to us when dealing with newspapers, as they use news and publicity material from all areas and endeavor to treat them all fairly.

Market news must be "made" interesting. The material should be prepared in clear, concise, plain language in order that the newspaper reader will understand the situation and will see how it affects him. News stories about agricultural products should be prepared for the consumer who will be reading the newspaper, and not for the wholesaler or the producer. Material for the trade belongs in special publications or trade papers.

As a result of our willingness to cooperate with weeklies and dailies, they often volunteer their services and work with us on special promotions. They respect our staff of marketing specialists and our publicity representative for the useful information they receive from them regularly.

A few weeks ago, the food editor for our only Maine Sunday paper called and discussed the possibility of doing a feature article on Maine potatoes. The publicity representative arranged for her to talk with one of our marketing specialists, who briefed her on the potato industry. He took her on a two-day tour of a potato storage, grading, and packaging operation; a frozen french fry processing operation; a potato pre-peel operation; and a potato chipping plant. After the tour, the food editor prepared a beautiful article, including photos of the potato industry, and recipes for potato dishes. The special feature utilized almost a full page in the Sunday paper and cost us not a penny. Cooperation of this type is not unusual in our program as we are willing to work with newspaper people and to be of assistance to them whenever possible.

Several months ago, many chains and large independents in our State were advertising chickens as "A-A-A," "A-A," "Fancy," and other terms which were misleading to the public. Our poultry marketing specialist visited with the advertising managers of our leading daily newspapers and explained the problem in detail. As a result, several meetings of newspaper advertising executives were arranged and our specialist gave a complete description of "processing plant procedure," an explanation of "inspection for wholesomeness," and "Federal-State grading for quality." In addition, the U. S. Department of Agriculture grade designations for poultry were carefully explained; namely, "U. S. Grade A," "U. S. Grade B," and "U. S. Grade C." The men were also advised that Maine chicken not meeting the requirements of the U. S. grades could be advertised as "Fresh Maine Chicken," "Native Chicken," and other similar terminology which did not pertain to nonexistent grades.

The following week all poultry advertisements were found to be properly worded with but two exceptions. A letter to these markets, and to the newspapers involved, corrected the situation quickly. At present, we are receiving excellent cooperation from all concerned.

We often ask for and receive assistance from Maine newspapers on special promotions, to relieve market gluts or to move excessive inventories when they occur. The teamwork of all agencies working on such promotions has been splendid and the results obtained most gratifying.

Our festivals which feature blueberries, broilers, milk, and potatoes are very popular and have become annual events. We supply all newspapers with editorial material, recipe material, and good photos. The results are loads of free publicity for the events.

The editor of one of our more popular weeklies became so enthused with the promotions that he devoted an entire publication to our Maine Potato Week, an entire publication to June Dairy Month, and another entire publication to our first Maine Blueberry Festival. We cooperated by supplying the paper with good, factual, up-to-date editorial material, photos, recipes, and newsworthy market news information. Other newspapers received the same material and could have utilized it in the same manner had they wished to do so.

These special efforts on the part of Maine newspapers are the direct results of a well-organized group of marketing specialists and a publicity representative who are willing to work together as a team and give our agricultural enterprises, newspapers, and other media the "action" and "extra service" which makes the difference between a successful promotion or a mediocre deal.

The newspaper folks know their business, which is reporting the news and advertising. We must respect them by presenting agricultural releases which are newsworthy and show that State departments of agriculture can be depended upon at all times for good, factual, and correct news material.

ARE EDITORS HUMAN?

Arthur W. Susott, AMS
U. S. Department of Agriculture

Are editors human? My answer is a definite "yes." But many of us do not treat them as humans, and therein lies the answer to often-heard complaints such as "he didn't use my story," or "he trimmed my story down to nothing."

It's been years since my newspaper days on both weekly and daily newspapers, but I haven't forgotten how inept many people can be when it comes to working with editors. When you leave an editor's office after having left a story with him, what is his feeling toward you? You may rate your working relations with your editor as excellent if he uses most of your stories. That in itself should be good proof. But in the editor's private opinion you may not be so hot.

Here may be some of the reasons. You brought your last story in right at his busiest time, and you took up some of his valuable time by your "experting" on the outcome of Saturday's big football game between State and the visiting Razorbacks. Sure, he welcomes good news stories any time of the day; but your story, to be honest, could have been delivered to him much earlier.

Furthermore, your story, although well written in your estimation, may have been too long for the editor's tight news space on that day. Advertising was heavy that day, and several big national stories were breaking--not to mention a riot at the State prison, and a local banker being arrested on a charge of embezzling \$200,000 from the bank. So, with all this to worry about, he or one of his copy editors had to take precious time to cut your story.

Now, of course, one way to avoid having the editor tell you that your story is too long, or if he doesn't tell you and cuts it after you have left, is for you to have trimmed out all the fat in the first place.

A good short story directly to the point stands a better chance than one that is too long. You and I know that. But I'm afraid that many times we're better preachers than practitioners. We simply do not take the time to boil a story down to the size it ought to be. We're like the fellow who apologized to his boss for a long report. He said he didn't have time to write a short report.

When I was an editor, I had people come to me with a story and say, "Here's a story I wrote this morning. Just learned about it this morning. You can cut it down to size if you're tight on space." Now, to my way of thinking that is a heck of a thing to ask an editor. In the first place, good editors always edit a story and cut where advisable, regardless of whether their space that day happens to be loose or tight. But let's go a step farther and assume that your story was about as compact as you could make it. The editor says it's still too long. Then why not ask him how many words he can use, and then you edit and cut the story down to the size the editor wants. Don't do this at his desk! Look for an empty desk in the editorial room, and do your work there. In short, don't run the risk of getting in the editor's hair even though he is a congenial soul.

Fact is, many people do get in the editor's hair, and most times are not aware of it. For one thing, the editor being the diplomat he is guards against offending anyone, or letting it become too evident that something may be getting under his skin. At times his patience is sorely tested, but generally he is a master at self-control.

Here are a few examples of how some people get into the editor's hair. Some of these are what I would call extreme cases, or border on the point of being ridiculous. I'm sure you are not guilty of such practices or poor manners, but my illustrations may have some value as object lessons.

Now, here we have the young lady who is secretary of one of the local Community Chest agencies. She breezes in your office and beamingly hands you a release. It's a three-page mimeographed release from her national headquarters, and in the fill-in spaces she has properly inserted the name of her city, and her name as the local representative.

Then she comes at you with something like this: "This was prepared for us by our national headquarters, and I'm sure you want to run it just as it is." Of course, you can't use three pages of this puffery. But you tell her "thanks" to get her out of your hair, and after she's gone you whittle the story down to a page, or let a copy editor do it.

Another editorial room pest is the chap who likes to report all his news by telephone. He's a big wheel in your town and is one of the top brass in one of your leading industries. So you can't be too abrupt with him by asking him to call you later or that you will return his call. You might have one of your reporters take his story over the phone, but it's beneath his dignity to come down to the level of a reporter. He talks to editors only--not reporters. Now, if he was as expert on public relations as he thinks he is, he would have had the story written by someone in his factory--by his house organ editor if no one else--and had it on your desk early in the morning. Nope, he won't do that; he's strictly the executive type and likes to keep industry moving forward through telephone communication.

Now, are you one of those chaps in calling on an out-of-town newspaper who asks the editor after he has agreed to use your story to mail you a copy of the paper or tear sheet containing the story? Instead, when on your way out why not stop at the circulation department and pay them a dime for mailing a particular issue to you. By doing this the editor has one less task that we used to classify as a nuisance chore.

As for the editor of a weekly or country newspaper, he's not much different than the editor of a daily newspaper on how he'd like to get his news. Just because he gets out only one edition in a week, don't think he's got all the time in the world.

Weekly editors begin working on the next issue as soon as the current issue is off the press. Say, as a weekly editor, our publication date is Thursday. That means that we have got to have all of our pages, except page one and another page, all set in type by late Wednesday, leaving two pages open or partly open for Thursday morning.

So, it's easy to see that in the case of a weekly newspaper it's a good idea to have your stories on the editor's desk early in the week. Do not hold your story back until late Wednesday or early Thursday with sole aim of getting your story on page one. You may find yourself crowded out, or if your story does get in it may be cut drastically. If it's a good story and given to the editor early in the week it stands a good chance of making page one if it is a page one story. The wise editor begins work on his page one early in the week so that come late Wednesday or early Thursday he knows pretty well what his front page will be like. Don't be disheartened if your story fails to make page one, for even on the inside it may still get a good heading that will attract most readers.

Now, for a minute or two let's switch and suppose you are a ranking official of a State department of agriculture. Chances are you are located in the capital city of your State, and reporters from the dailies cover your office more or less regularly.

Are you generally available to reporters? Or do you take your sweet time when they call at your office and let them cool their heels in the outer office? Just how do you rate with the reporters? Are you a "dry source" for news, or a good source?

If you have competing dailies in your city, do you try to equalize the news you give out between reporters of afternoon and morning papers. Or do you give far more news to one reporter than the other in the case of afternoon and morning papers? Then, too, how are your working relations with the local AP and UPI correspondents. They're mighty good folks to know to get broad State coverage of your stories.

My experience with editors of weeklies and dailies has been that they're most human. They'll be glad to work with you, particularly if you make it a point by your action and manners to meet them more than halfway. They want your news. News is their business. But be sure that what you submit is newsworthy and well written with the fat trimmed out. And, again, get the story to the editor early--not an hour or so before the paper is to hit the street.

If you keep these points in mind, I'm sure that in your book you can safely put it down that the editor is your friend, and vice versa, in his book you'll be listed as his friend.

MAKING USE OF PUBLIC SERVICE TIME ON RADIO AND TELEVISION

Marjorie A. Gibbs, Michigan Extension Service

What is public service time? It seems only natural to say that it is time which is set aside for programming which is of service or interest to the station's specific audiences or the general public. That's really how the program directors of our stations define it. They say that all public service representatives must, before anything else, keep in mind that their program must be attractive to large groups of people, to the masses, to meet the interest of everyone. It must be able to communicate ideas, to have some kind of emotional appeal--curiosity, suspicion, anger, happiness, or many others.

In chatting with the program directors of a couple stations recently, I found that they were in agreement that their greatest "gripe" against public service representatives is when they make demands on their time because they think their program is vitally important, although it may only appeal to a small and specialized audience. Public service time should be judged exactly as commercial time--on public appeal, on its entertainment value, on its ability to be sold if so desired. I was very surprised when I first found that public service time can be purchased time, if it is educational.

Most stations feel that acceptance or rejection of public service programs is to the mutual benefit of the station, the public service person, listeners and viewers. They feel that everyone really wants to have perfect shows, that the audience expects all performers to be trained in the art of radio or television, that their disinterest in a program is just as harmful to the public service person as it is to the station.

We hear a lot of conversation about the law regarding free time on radio and television, and I'm often amazed at the misunderstanding of its true meaning. For neither radio nor television is required to set aside any definite percentage of its time for public service. It is my understanding that the Federal

Communications Commission merely uses this as one measuring device to determine if a station will have its license renewed.

Licenses are renewed every three years and in that time a composite broadcast week is selected by the FCC to measure what kind of programming the station is doing. Seven days are selected, and no two days are chosen in one month. For instance, Monday might be chosen in September, Tuesday in October, and so forth. Prior to this, the station submits a proposal to FCC outlining the proposed programming, and the program types for the period. Public service programs may be religious, educational, agricultural, discussions, talks, and several other types of programs.

Following the composite week the station's logs are compared with the proposed policy and the FCC records from the composite week. If they do not compare, the station must give a satisfactory explanation of "why." In other words, every station actually sets up its own goal in public service time and most of them average one-quarter to one-third of their time.

We have to constantly try to be creative in our planning and in our approach. But at the same time, on our original contact with the station we must have a definite purpose for wanting time, a definite reason which appeals to the station's interest in serving their audience. Our program presentation should include a simple but attractive statement of the subject matter which would be included, the approximate length, and any ideas of format. From there the stations can take over. Again I'll say a lot depends upon our public relations approach, whether we can sell ourselves before we sell our program.

Every station differs in what it wants, but there are a few basic suggestions which I have heard in my contacts. The worst thing in the world is for a public service guest to be late. While on the air keep the words simple, the sentences short--remember that you are talking to the masses; that radio and television are quick and seldom get the full attention of the audience. Then, relax and be yourself, be enthusiastic, and work a smile in your voice every once in a while. Speak slowly and clearly with word pictures--lots of hows and whys to your story.

Naturally we want to be prepared with some sort of an outline for a straight talk, or suggested questions for an interview. The interviewer may want to frame his own questions but this will be helpful guide. We can ad-lib our answers and make them personal, with lots of we, ours, my or mine's. The most difficult thing for me has been to remember that I'm talking to an individual person, one at a time--perhaps my neighbor. We all have a tendency to talk to the whole audience.

Another problem which I have had to remember is that in radio or television if we can plant just one new idea, one impression, our program has been successful. We all try to tell too much at one time, in one dose, and the audience has difficulty in remembering anything.

In television we have additional things to consider. In the first place our audience is different. In the daytime, women watch to both learn and be entertained, but at night they want more entertainment. We also have to appeal to the men in the family. I think we almost have to have a little of the "ham"

in us if we like television. We have to like the dramatic, the challenge of trying to put our ideas across by action. We have to have a friendly personality, or a personality which can hold our audience, a personality which can be defined, which can be remembered--liked or disliked.

Television takes more time for planning, and we should never forget this. We have to plan our script, what we will say, any action, and the visuals to use with the action all in the time allotted. TV representatives say that for every hour on the air, 6 hours are required for rehearsal, excluding planning time, and for every 5 minutes on the air, 30 minutes of rehearsal are necessary. The high cost of every second of time is one reason for this.

In summary, I believe that the secret of taking better advantage of public service broadcast time is to be a little humble in our approach, to better identify our programs with our audience; to keep the programs understandable and entertaining; and to have them well-planned.

MAKING USE OF PUBLIC SERVICE TIME ON RADIO AND TV

George Shannon, Farm Editor
Station WWL, New Orleans, La.

Radio and television stations are required by law to give a certain percentage of their time to public service programs, but this time is divided by civic clubs, churches, youth activities, special drives, sports activities, politics, and farm news. Yes, there is a law that entitles you to some of this time but it is up to you and your personality as to how much of this free time you will be able to get for your special project.

You and I know that there are some people who could talk their way out of any situation or into any other. I can give you a few hints that will help you get through to the giver of time and space. If I had the job of dissemination of market news, I would pick out the stations I wanted and then concentrate on them first. Get the best stations first and the others will sooner or later follow and be asking for the same kind of help from you.

Try to fit your information to a certain announcer or personality on the station. As an example, on WWL TV if I am trying to get extra coverage for a certain agricultural event, I will try to get a nice looking girl to present a package of fruit or whatever the product to Henry Dupre. These people want and need program material. A glamorized sack of potatoes will get a lot more attention than the best quality potato in the world. You are dealing with people who do not know your subject and in many cases care less, so you must get a unique approach or you will not get the coverage desired. Here we have the first example, and, I repeat, try to fit the information to the station or the personality involved.

Example number two, try the contest idea. By this I mean ask the station if they want to set a contest for their listeners and you will provide the baskets of fruit or other prizes. One of the first things a station will ask you is what will be the subject of this contest. This should give you a wide

open field to sell your subject, such as how many good fresh sun ripened Louisiana strawberries are in an average crate? Stations want good products to offer to their listeners and they want to hold down cost, but at the same time they want to get as much mail as they can. With the proper approach I feel that we can use every radio and TV station in season with a very minimum of costs. Yes, it is going to cost you something. You will have to arrange to provide the contest prizes. There are many ways to handle that problem including letting the local farmers' committee provide the station with the crate of strawberries or prize pig. So, example number two is to use a contest idea along with plugging the local crop idea. By the way, if the local station is alive, you will find that they will have a commercial sponsor on this program idea before too long and you will be a great friend to the local sales department or the program director.

Here is a don't idea--don't send a woman with your message to a woman editor. I think that most of the women's programs would welcome a man guest faster than another woman with all kinds of competition for the gal who's running the show. Yes, I think that a women's editor will take a recipe for apple pie from a man guest faster than from a woman.

Never overlook the local politician when you are trying to get some of that public service time. Stop by the local mayor's office and ask him how you can announce that the cranberry crop this year is one that is clean and wholesome. As a matter of fact it might well be suggested here and now that you make it a national campaign to get the local mayor to make this special plea for the national cranberry industry. This man is a local official who has a command of the local attention that you need to trade on. This is a serious situation facing the local store owners and the good taste of the community is involved. Get the local FDA official to call on the local mayor for a statement. This is indeed a public relations job and it requires a wide range of imagination on your part. If you don't like the mayor idea, then take it and use your imagination on it by using the local basketball coach instead or perhaps the local preacher as a highly respected figure.

Stop by and visit with the local advertising agencies and ask them how you can get your message on the air. Give them an idea of your problem and perhaps you will find a ready ally and one that will take your problem and turn it into a neat profit for himself. If advertising ever lacks anything, it is definitely ideas. There are people who need to know the things that you people have as common knowledge. How many of you have ever visited a large advertising agency? Every agency that has the job of advertising ice cream must know when, where, and what kind of local fruit will come in season. They use this information to help sell their own product. A visit with these people might prove to you that there are really exciting ideas that can be put into good use if these ideas ever came to light in the right place in the right time. The right place in the right time, of course, is a good trick, and I'd suggest that you begin by making yourself a seasonal calendar. Put your job problems on paper according to seasons. Sometime ago I went to a local merchant in the month of May and asked him if he was ready to start talking about buying Christmas trees. He said that he always bought his Christmas trees in February--that's how far off time I was.

It is important to have your suggestions timely when you are talking in terms of public service time. When you go to a radio station, the time can be very close to the season; when you go to a newspaper, you should be a week or so in advance; a magazine a month in advance. But when you go to an advertising agency be sure that you talk with them about Easter time when it is September, and in February talk about the back-to-school time for kids or at least 6 months in advance or it won't help much to talk to an agency.

If you want to kill off the project entirely, give it to a committee. But if you want to get a real hot spot, pick out the busiest guy in the trade and chances are with the right approach he will give you more than you asked for.

In closing, to get the most of the available public service time the material should be well presented (physically), at the right time, to the right person, and don't be timid about offering it because it is a project that will help the program director and his community if done in the right way.

MAKING USE OF PUBLIC SERVICE TIME ON RADIO AND TV

Hildreth G. Hawes, Maine Department of Agriculture

We think that a motion picture program such as the one we operate in Maine is a most effective answer to the need for improved public relations between the farm and the city. I think that people in small cities in Maine have been kept up to date on the problems of Maine agriculture over a period of the last 30 years through motion pictures. In the beginning, we made films for school and civic club use. Now, since about 1950, we make them for those uses and for television, and we distribute the films west to the Mississippi and across the country--sometimes abroad--to schools and adult organizations.

This use by television is growing each year. During the 1960 fiscal year, 166 stations gave us 709 complete film shows. This is an increase of more than $2\frac{1}{2}$ times in 3 years. There is considerable interest in farm subjects in the East, and across the Nation as a whole the interest seems to be even greater. For the same fiscal period the U. S. Department of Agriculture has reported 2,977 television showings of its 200 farm, forestry, and home economics subjects. This is a 65 percent increase in a single year.

The 14 films made by the Maine Department of Agriculture, and distributed from its office at Augusta, had a total audience of 35,400,000 viewers according to a standard industry yardstick.

Maine station operators gave about \$96,000 worth of time for these films--which are public service program material because they, in an entertaining way, provide information on food production; on the uses of various agricultural products; and on Maine, its people, and their farming and business methods. If we had paid for this time it would have cost more than \$96,000 at Class C rates. The motion picture program of the State department of agriculture, including all salaries in the office concerned, all film production, replacement prints, film repairs, and so forth costs approximately \$25,000 a year.

Although the vast audiences of television are most significant, the department finds other worthwhile audiences. It made a recent wide screen color film on chicken barbecuing. MAINE BARBECUE has been distributed for the last 3 fiscal years to theaters in the northeastern United States. During the last fiscal year, 557 theater owners gave 3,971 showings, attended by 741,269 people. In the same year, schools, social clubs, and civic organizations gave a total of 3,169 showings of department films to approximately a quarter of a million people.

Since the television film program of the department became an important medium of State publicity, showings reported by station operators have increased substantially each year. In the year from July 1, 1956 to June 30, 1957, there were 261 showing reports. In fiscal 1957-1958, there were 451, and in 1958-1959, 601.

Most of the department films are devoted to the production, distribution, and use of specific food crops, and thus have a direct value to particular segments of our economy. For example, a 9-minute film called POTATOLAND had 87 showings on television in the year just ended. BLUEBERRYLAND had 80. A film which is somewhat more general in nature, PART-TIME FARMER, also had 80 showings. This third film advertises Maine recreational opportunities, and the labor force available for local industries as well as our attributes as a farm State.

CONCLUSIONS AND RECOMMENDATIONS

of Work Group on Promotion

At the opening session the work group concluded that publicity, or proper and effective dissemination of information, is the weakest phase of our AMS matching fund program. Too few people in Congress and even in the affected local area are even familiar with this program to expand markets for agricultural products.

Marketing improvements mean changes, but changes in the way people do things cannot come about without adequate publicity to create the desire and win support for such changes. Furthermore, State departments of agriculture and marketing officials must recognize the value and take advantage of an adequate publicity program if the AMS matching fund program and the individual State programs are to progress properly.

Following a talk on informing the public about grades, the group agreed that there is a real need among marketing officials to work with the trade in updating grades and standards to adequately reflect consumer needs and preferences. One of the most pressing problems in this field is that it is difficult to inform consumers about grades unless grade names are greatly simplified and made more meaningful.

Price as a publicity tool must be considered and judged on a relative basis. The price of a given product at a given time, for example, cannot be judged on its price last year or a month ago. The price of a product must be judged in

comparison with the prices of competing products at the time the product is offered for sale. The group concluded that price is not the only factor that affects sales, but that it is important and with other factors being equal, price can be an important sales tool but it must be used with caution.

Publicity can be a most important tool in reducing market gluts, but it cannot be half-heartedly planned or executed if the desired goal is to be attained. First, there must be an early recognition of a possible glut, which can be ascertained by keeping abreast of crop conditions through crop forecasts and estimates and other sources. Second, there must be immediate organization for the job ahead, in which careful planning is a must. Third, there must be action, or effective execution of carefully developed plans. Where complex informational and promotional programs are involved, State departments of agriculture can often serve as effective coordinators by obtaining the cooperation of producers, handlers, and food trades, and news media as well, in order to create a desire for the product among consumers.

The welfare of the producer depends to a great extent on what happens to his product in the marketing system. He must, therefore, take an interest in his product after it leaves the farm. Producers must understand that they are expected to assume at least some of the responsibility for the movement of goods from the shelf to the consumer's use.

Promotion is becoming more and more important in an effort to capture or even hold markets, but the proper promotion of any product is far more complicated and complex than simply selecting a beauty queen and getting her picture in the paper.

Businessmen are willing to assist in agricultural marketing programs once they are certain that the programs or projects are practicable and truly worthwhile. In seeking the support of business and industry, the marketing specialist must win the confidence of the businessmen who may be involved. In winning the support of business, marketing specialists must take the time to analyze their proposed programs just as a businessman would analyze them.

The collection and expenditure of funds for the promotion of agricultural products require a great deal of research, planning, and thought. Adequate promotion programs should be financed primarily by the commodity groups concerned, but in many cases the State departments of agriculture are going to have to help guide the direction such programs take.

From the discussions, conclusions were reached that the best means of assessing or taxing commodities for promotion is that of levying on units of products marketed. Financing has to be done with some guarantee of group action and attempts should be made to evaluate all promotion expenditures. Wherever possible the people who handle the products between producer and retailer should also be brought into the financing picture to insure unity of effort.

In most cases there is no adequate substitute for trained, experienced news specialists if a department expects maximum results in the field of publicity.

In some departments marketing specialists are trying, and are doing a good job in dealing with news media but in most cases all concerned have found that a trained and skilled publicity man is or would be well worth the expenditure required to obtain such service.

All news media, newspapers, radio, and TV stations welcome material properly prepared and properly presented. Experienced newsmen know the problems and desires of editors and station managers.

Marketing specialists who have the additional job of handling publicity must become thoroughly informed of media requirements and demands if they are to do a creditable job.

DAIRY PRODUCTS

Work Group Sessions

FEDERAL MILK MARKETING ORDERS - WHAT THEY CAN AND CAN'T DO

John C. Blum, AMS, U. S. Department of Agriculture

Milk pricing policies and programs have been a principal concern of dairy farmers for half a century. As early as 1910, milk producers were joining together in cooperative associations to bargain with milk dealers for the sale of their milk. By 1920, these bargaining cooperatives had adopted a system of classified pricing based on the form in which the milk was used. These early cooperative efforts were voluntary. During the depression years of the early 1930's, voluntary price plans broke down under the weight of excess milk supplies. The Agricultural Adjustment Act of 1933 provided the first legally enforced system of milk pricing. After a series of modifications, the legal authority for Federal milk marketing orders as we know them today was incorporated in the Agricultural Marketing Agreement Act of 1937.

The growth of the Federal order program which began in the mid 1930's was interrupted by World War II. Following the end of the war in late 1946, there were 29 Federal milk marketing orders in effect. The number has now grown to 80. Since the end of the war we have added an average of about 4 new orders a year, despite the fact that there have been 10 consolidations of previously existing orders. Federal orders now regulate 43 billion pounds of milk per year delivered by about 190,000 producers. This represents 43 percent of all whole milk sold by farmers and over half of the milk sold as fluid milk and cream in the United States.

Milk producers are the ones who determine whether or not a Federal milk order should be adopted in a particular market. Work on an order is not undertaken unless producers in the affected market request an order. No order or amendment to an order can become effective without the approval of two-thirds of the producers in the market (three-fourths in the case of an individual handler pool). In addition, the Secretary of Agriculture must terminate an order upon the request of over half the producers in the affected market. Initial and

continuing support by producers therefore is essential to the operation of the milk order program.

The Agricultural Marketing Agreement Act establishes strict rules as to how the milk order program shall be carried out, and the provisions of this statute determine what can and cannot be done under the orders.

There are four principal things which Federal milk orders can do to bring about more orderly marketing of milk:

1. They establish minimum prices which regulated handlers must pay to producers for milk. These prices are established on a classified use basis and they are kept responsive to changing market conditions through the use of pricing formulas in the orders. Order prices are based on market supply and demand conditions in the respective market, at such level as will assure an adequate supply of pure and wholesome milk for the market.

2. They provide a system of pooling the returns for milk in each marketing area and distributing these returns to producers on a uniform basis. Under a marketwide pool each producer receives a uniform price based on the utilization of milk in the entire market, adjusted for butterfat content and other specified differentials. Under an individual handler pool each producer delivering milk to a particular handler receives a uniform price, but the uniform price may vary among handlers, depending upon the utilization of milk by the respective handlers.

3. They provide a system for enforcing the payment of minimum prices to producers. A market administrator is designated for each market, and he carries out a program of auditing, checking of plant utilization, and checkweighing and testing of milk and milk products to insure payment for the full volume and butterfat content of milk delivered in accordance with order provisions.

4. They provide statistics and market information which help producers, dealers, and other interested persons to better understand market conditions and make more intelligent marketing decisions.

Despite these substantial accomplishments, there are many things which Federal milk orders cannot do, and were not intended to do when the authorizing legislation was written:

1. They do not set a fixed floor under market prices over a period of time, as the price support program does. Order prices usually change from month to month depending upon changes in local market conditions.

2. They do not guarantee a market outlet for milk. This is a function which individual producers and their cooperative associations must continue to carry out even with a milk order.

3. They do not provide direct production controls for milk. Some orders contain a base-excess or similar plans, but these are designed to even out production seasonally during the year and not to control the annual level of production.

4. They do not establish sanitary requirements for milk. This is the responsibility of State and local governments. However, to the extent that these requirements affect the supply of milk for a particular marketing area, they must be taken into consideration in the establishment of prices under an order.

5. They do not set resale prices. The 1933 Act and some early agreements and licenses did provide for the establishment of resale prices but this authority was dropped in the 1935 and 1937 acts.

6. They do not establish fair trade practices at the resale level. The statute provides that orders may include fair trade provisions at the farm-to-plant level, but producers have not shown great interest in such provisions and we have not felt that they were necessary for effective pricing and pooling.

The large degree of producer participation and the formalized procedures required by the Agricultural Marketing Agreement Act have strengthened the milk order program over the years. Orders are introduced only after public hearings are held at which all interested persons have an opportunity to present their views. Order provisions must be based on the evidence developed at these hearings. The Act also provides procedures for administrative and judicial review of order provisions and administrative actions to insure continued operation of the program in the public interest.

In carrying out the Federal milk order program the Department has sought to minimize the scope of regulation and to go only so far as appears necessary to deal with the problem existing in a particular market. It also has sought to adapt order provisions to changing market conditions in such a way that the orders would neither force nor impede marketing changes.

Provisions written into law nearly 25 years ago have stood the test of time. The Federal milk order program has accommodated new ideas and has permitted adjustment to changing economic conditions. We feel that the program which has evolved has been strengthened by the interest and participation of producers, handlers, and other interested parties. Each in the pursuit of enlightened self-interest has made adjustments within the framework of the order program which have resulted in a stronger and more stable dairy industry.

THE GOVERNMENT PRICE SUPPORT PROGRAM - ITS VALUE AND LIMITATIONS TO DAIRYING

Linley E. Juers
Wisconsin Council of Agricultural Co-ops

Any discussion about dairy price support programs, whether it be an evaluation of the performance of present or past programs or a discussion relating to proposed new programs, usually raises many controversial points. This is true largely because price supports in general have been a strong political issue in recent years with much partisan difference of opinion both as to the performance of our present program and changes in this program that might be warranted. It is difficult to discuss this subject with complete objectivity

because a great deal of personal judgment and interpretation must be injected into such a discussion. To the extent the discussant's interpretations might coincide or differ from the particular standpoint of individual listeners, his objectivity may be questioned. This cannot be avoided, however, so I can only try to be objective in presenting to you my ideas on the topic assigned.

The authority for the present dairy price support program is contained in Section 201 of the Agricultural Act of 1949, as amended. This section authorizes and directs the Secretary of Agriculture to make available price supports to producers for milk, butterfat, and certain other commodities. With respect to the price objective, this section states: "The price of whole milk, butterfat, and the products of such commodities, respectively, shall be supported at such level not in excess of 90 percent nor less than 75 percent of the parity price therefore, as the Secretary determines necessary in order to assure an adequate supply." With respect to the method of providing price supports, the section further states: "Such price support shall be provided through loans or purchases of milk and the products of milk and butterfat. Remaining provisions of this section provide for necessary appropriations, granting the Secretary authority to dispose of commodities purchased, and authorizing the Secretary to subsidize milk usage through other governmental agencies as a means of increasing the utilization of dairy products.

In carrying out this program, the Secretary announces at the beginning of each marketing year the support level for manufacturing milk and butterfat on which purchases under the program will be based. The actual support objectives are then achieved by setting purchase prices on individual dairy products which will cause the support level to result at the farm market level. The percentage of parity at which these support prices are held is at the discretion of the Secretary within the 75 percent to 90 percent of parity range, but this shall be a price which will assure an adequate supply.

The two price series upon which this parity determination is based are the parity price for butterfat in farm separated cream and the parity price for all milk sold wholesale. For price support purposes and for deriving manufactured product prices, the Department calculates a parity equivalent price for manufacturing milk from the parity price for all milk, wholesale, using as a basis the last 10-year average relationship between manufacturing milk prices and the all milk, wholesale series. The determination of this equivalent price for manufacturing milk is necessary because there is no separate price series for manufacturing milk dating back to the period in which the parity prices have their basis. The determination of the prices at which the Department will support the manufactured products is then a matter of adding to the farm level support price for milk a margin for processing this milk into the various manufactured products and allocating this margin on the basis of product yields and historic relationships between the product prices.

In the operation of the price support program, the Commodity Credit Corporation offers to purchase manufactured dairy products at the prices specified by the Secretary, thus establishing a minimum price at which these products have to be sold. In other words, the existence of this Commodity Credit Corporation outlet tends to keep milk prices from falling below the support level even when the supply of these products is considerably in excess of what the commercial market or consumers are willing to pay. Purchases under

this program have generally been restricted to butter, nonfat dry milk, and cheddar cheese, although other products have been purchased at times. The Secretary has established special prices at which the armed services might purchase whole milk in addition to their regular purchases in order to offset purchases of products that might otherwise have to be made. The School Lunch and Special School Milk Programs are in part extensions of this same idea although there are substantial public welfare motives involved in these programs as well.

Viewing the program historically, there have been purchases of surplus dairy products during every year since 1949. These purchases have ranged from over 8 percent total milk fat production in 1953-54, to less than 1 percent of milk fat production during the Korean period of 1951-52. Support prices during this period have varied through the entire permitted range of from 75 percent to 90 percent of parity, with support prices varying from a high of \$3.85 during 1952-53, to the low of \$3.06 during 1958-59.

An extension of the wartime demand maintained fairly high dairy prices during the immediate postwar period of 1946-48. These outlets and particularly foreign shipments declined by 1949, however, and the price support program has played an active role in determining milk prices ever since that time. Support purchases from 1949 through 1951 were at moderately high levels taking fairly significant percentages of the production of the three dairy products purchased. During the 1951-52 marketing year, purchases fell to insignificant levels due to the expanding demand during the Korean hostilities. In 1953, however, a fairly significant increase in milk production started, and in 1953-54, an all-time peak was reached. The increase in milk production at this time was apparently due to a combination of favorable milk prices, low hog and beef prices, and the output expanding effect of new technologies in milk production. Since the peak in 1953-54, purchases under the support program have gradually declined, and at present, except for nonfat dried milk, only minor amounts of production are being purchased. Purchases of butter during the current marketing year will probably be in the vicinity of 1 to 2 percent of total production with only token purchases of cheese. Purchases of nonfat dried milk, however, continue to amount to 50 percent of total production of that product, or 10 percent of total milk production on a milk equivalent basis.

As a gross evaluation of the dairy price support program during the postwar period, it can perhaps safely be said that farmers have received significantly higher prices and more income from milk than they would have received had there been no price support program. With dairy surplus averaging around 4 percent of total commercial sales since 1950, it seems obvious that prices would have been lower had the Government not stood ready to purchase these surpluses. It is possibly true that commercial markets for butter and nonfat dried milk might have been greater had there been no price support program. Butter would have been more competitive with substitutes, and commercial uses for nonfat dried milk would have been easier to find. However, at the lower market prices, returns to farmers would possibly have been lessened substantially with output of nonfat dried milk running approximately double commercial usage at present prices. The market price without a support program would have fallen to a level at which very little would be returned to farmers after allowing for processing and marketing costs. It can certainly be said

that if the price support program had been discontinued during the past few years, prices to farmers and farm income from dairying would have fallen substantially.

In addition to the effect of the dairy price support programs on the immediate prices of milk and dairy products, there are many other considerations involved in dairy price support policy. In evaluating the performance of a given program or considering new avenues through which policy goals might be approached, some of these considerations are of vital importance.

While the price objective of Section 201 of the Agricultural Act of 1949 ties prices very directly to an adequate supply criteria, the basic and underlying purpose of price support activity is to correct the malfunction of markets which has created, or threatens to create, adjustment hardship or persistent low incomes among the producers of the commodity for which prices are to be supported. It is thus perhaps relevant to render some opinion as to the effectiveness of the current dairy price support program in improving the economic position of dairy farmers.

One of the commonly held objectives of our price support programs is to accomplish some general improvement in the incomes of producers of milk and milk products relative to the average income in the United States. While the dairy price support program has had some fairly positive effect in maintaining prices, it does not seem to have significantly improved the relative income position of producers.

With respect to this objective, it is perhaps valid to ask whether income improvement can be accomplished through prices alone. While some amount of income improvement could possibly be afforded through higher prices, it is apparent that much of the low income problem in dairying, as in other areas of agriculture, stems from the internal characteristics of agriculture itself. While we tend to look primarily at average figures in considering the magnitude and degree of the farm income problem, it is well understood that there is a considerable range about these averages, depending upon the size and amount of resources employed on individual farms. It is apparent that at any given level of price, farm income could be improved considerably if the average size of farms was larger and production practices in general were improved.

Thus, if a price support program is to have the objective of accomplishing income improvement for the average producer, it must, in addition to stabilizing and improving prices, provide incentive for internal adjustments on the farms which are consistent with the objective. Under the present program, the incentive for adjustment in the direction of larger farm units and more efficient production, is through reduced price incentive which has the effect of eliminating inefficient producers by making it more difficult for them to survive. The experience of the past 10 years would indicate that there has been considerable adjustment of this type with numbers of farms and numbers of cows being reduced considerably. However, the adjustment has apparently not contributed very measurably to improved dairy farm income. The reason for this apparently is that in terms of total resources going into dairying there has been little change.

There is some concern in many circles over the failure of the present program to achieve long-term adjustment from the standpoint that continual appropriations are required to purchase the surplus commodities. There has at times been resistance in other sectors of the population to the continued use of tax money for supporting agricultural prices. Actually, there is little validity to this reaction in that the cost to the general public for the dairy products they consume, including both the market price of the commodities and the cost of the support program, is possibly lower than what they would pay if more satisfactory commodity prices were achieved and all of the producer's income came through the market price. Nonetheless, the continued recurrence of this public sentiment indicates a vulnerability in this type of program and provides incentive for seeking ways to accomplish long-term adjustment which might end the need for appropriations.

A question also exists, particularly in the Midwest, as to how well the present price support program has been integrated with respect to attempting to achieve adjustment with the Federal order program which also has a very significant affect on milk prices. In the period prior to World War II, it was possible to think in terms of separate markets for manufactured products and fluid milk with little or no inter-relation in prices. In the postwar period, however, with vastly improved milk handling technology and transport facilities, this is no longer true. With the Federal order program directly or indirectly determining prices on over half of the milk produced, it would seem that the pricing policies of these two programs should be very closely related. Yet there seems to have been inconsistencies during recent years and possibly a noticeable difference in impact from the two programs. In the Midwest, where prices are almost directly determined by the price support program, there has been a tendency for milk production to decline or moderate during the past couple of years, while in other areas of the country, where prices are more influenced by Federal order prices, milk production has increased substantially. In terms of achieving efficient milk production for the country as a whole, this trend seems to be contrary to what might be desirable and raises many questions as to whether Federal order pricing can be divorced from the objectives of the price support program.

In recent years there has been a decided trend in the direction of lower milk fat consumption per capita and higher utilization of the nonfat solids components of milk. The maintenance of fixed price relationships provides incentives to continue producing the various dairy products in the same relative proportions, while it is obvious that at some point in the future a greater share of the value of milk will have to be shifted to the nonfat solids side. In the immediate future, this does not loom as such a large consideration in view of the excess supply of nonfat dried milk relative to butter, but this problem will have to be faced realistically if emphasis on the present price support approach continues. Some problems along this line have already been encountered with respect to determining pay prices for different grades of the products purchased. In the case of butter, for example, it was found that offering to purchase lower quality butter encouraged the production of lower quality butter which was considered an undesirable effect of the program. But on the other hand, offering to purchase only high grade butter tended to put the better butter in government storage and leave the lower quality butter on the market which is also deemed, in some respects, undesirable. The arbitrary

setting of prices without relying on actual market determination has considerable impact on the industry and may tend to promote production or marketing trends which are contrary to the best interests of producers in the long run.

Finally, in recent years there have been many proposals for changing the support program for milk and dairy products. These have included proposals for making direct payments to producers, marketing restrictions, intensified promotion, restriction of production or marketings, and, in an indirect way, land retirement programs such as the soil bank and conservation reserve program. Perhaps foremost among these during the past two years have been the proposals for reducing marketing through various forms of marketing allotments.

In conclusion, I would say that the present price support program has been of considerable value to dairy producers but it also has some limitations, as I have noted. Data on dairy farm income, as we have it, would indicate that price and income problems still exist and thus some attention is warranted in considering how the present program might be improved. I feel there is some merit in the supply or marketing limitation area but that considerable study will be required before we can be sure this is the answer.

THE CHANGING DAIRY PICTURE

Judson P. Mason
National Milk Producers Federation

The analysis of trends taking place within the dairy industry makes it clear that we are witnessing the emergence of an integrated national milk marketing system that cuts across historical procurement, use, and distribution patterns.

The production of milk is becoming a more specialized farming operation. The number of farms producing milk is declining, milk production per farm is increasing, and more farmers are competing for available Grade A fluid milk outlets.

Historically, milk has been marketed through one of three channels. One group of farmers produced milk for individual fluid milk markets. A second group produced milk used exclusively in the production of manufactured dairy products. A third group produced milk which was marketed as farm-separated cream for exclusive use in the manufacture of butter. These three channels of supply are now converging into a single stream of Grade A milk.

New technology on the farm, such as milking parlors, pipelines, and bulk handling, is inducing many farmers to rebuild or redesign their production operations. In doing this, they generally accommodate their facilities to handle more cows and they tend to build to Grade A specifications. The bulk tank system, larger volume per farm, improved quality, and improved transportation and highways are making it possible for farmers to seek access to milk markets over greater distances than have heretofore been possible.

In former years fluid milk was insulated from the competition of milk marketed as farm-separated cream and also of milk not meeting requirements of

fluid milk markets. Under present circumstances an increasing percentage of total milk production is becoming interchangeable at the marketing level. It may be used to make butter, to make manufactured dairy products, and, in increasing amounts, to supply fluid markets. In 1930, an estimated 97.5 percent of creamery butter was made from butterfat marketed as farm-separated cream, and 2.5 percent from butterfat marketed as whole milk. By 1959, the percent of creamery butter made from farm-separated cream had dropped to 34 percent. Conversely, the percent of butter manufactured from whole milk marketings increased to 66 percent. A substantial portion of the butter in recent years has been made from Grade A milk.

Another comparison can be made between total milk production and whole milk marketings. Between 1930 and 1959, annual milk production increased 24 billion pounds, or 24.1 percent; but whole milk marketings increased 66 billion pounds or 192 percent.

The backlog of milk formerly retained on farms or marketed as cream is being freed to compete not only for manufacturing milk markets but for Grade A outlets as well. It is obvious that an increasing portion of whole milk marketings meets Grade A requirements, but it is difficult to determine the exact status of this shift.

The total volume of milk utilized in fluid form has increased in recent years. Meanwhile, fluid milk consumption, as a percent of total whole milk marketings, has decreased. Although prices paid farmers for fluid milk and for manufacturing milk have been closely aligned, the spread between the two has tended to become wider. In 1935, dealers were paid \$2.49 per cwt. for fluid milk and \$1.35 per cwt. for manufacturing milk, a difference of \$1.14. By 1959, the price of fluid milk increased to \$5.41 per cwt. compared with \$2.92 for manufacturing milk, a spread of \$2.49.

A widening of differentials between prices paid for fluid milk and prices paid for manufacturing milk makes it possible to pay transportation costs from farm to market over wider and wider geographic areas. It also makes it possible for farmers who heretofore had access only to manufacturing milk or cream outlets to seek fluid milk markets. It provides farmers and plants an opportunity to select one market in preference to another, depending upon the relative prices and costs of transporting milk. Procurement-wise, then, a greater and greater portion of total milk production is becoming eligible for participation in fluid milk markets, and the procurement areas of fluid milk markets can be expected to overlap to an increasing degree.

With increased emphasis on the production of Grade A milk and an overlapping of procurement areas, it will become more difficult to determine which farmers, or plants, are entitled to participate in a given market pool and which are not. It will also become more difficult to determine whether a group of producers should participate in one pool or in another. The day may not be far distant when all milk will meet Grade A standards and participate in pooling in one way or another.

National Price Pattern

In distribution, we have long experienced a national pattern with respect to butter, cheese, and other manufactured dairy products. Wholesale prices have not varied for long by more than the differences in the cost of transportation from one area to another. Dairy products such as butter or cheese move from area to area in response to minor variations in price. The price paid farmers for manufacturing milk has therefore not varied widely from area to area. The support price program also is geared to a national average price.

Although fluid milk prices are established on a local market basis, in recent years it has become necessary to align Class I milk prices from market to market. The basic level of Class I prices, therefore, is also taking on national characteristics. There has been a considerable effort made to establish the proper alignment of Class I prices between Federal order markets. State orders have also recognized the necessity for price alignment. The real impact of intermarket competition, however, has yet to be felt.

Because of the prospect for intensive intermarket competition--in procurement of sales--we can expect continued growth of the Federal order program, and the integration of pricing, pooling, and other provisions to accommodate the emergence of an integrated national marketing pattern. The search for equitable pricing and pooling more than likely will require considerable attention.

Plant Organization Requires Attention to Price Making and Pooling

The dairy industry is experiencing a gradual reduction in numbers of milk plants--both manufacturing and fluid milk operations. The remaining plants are handling larger volumes of milk. The fluid milk plants are servicing wider and wider areas of distribution, without regard to municipal or State boundary lines. The distribution facilities for fluid milk, as well as manufactured dairy products, are also becoming concentrated into fewer and fewer hands.

Since World War II, there has been a dairy merger on the average of almost every other day--approximately 150 per year. Most of these have been small concerns and represent the decline in numbers of plants.

The spectacular side of the dairy mergers, however, is the growth of the big dairy chains. As these national chains become more dominant, and more competitive one with another, they can be expected to become more sensitive about their relative cost of milk compared to that of their competitors. They can be expected to relocate plants to accommodate economies in procurement, as well as in distribution. They can be expected to be less sensitive to the needs of local producer groups, and not hesitate to transport milk from areas of relatively low milk prices into areas where prices are higher. This change in the marketing pattern is extremely important to dairy farmers and to their cooperative associations.

Cooperatives must be alert to intermarket price competition and to the bargaining strength of the national chains. This may limit emphasis on local price bargaining but lead to price bargaining on a regional or national basis.

It may also mean a vigorous expansion of cooperative activities in the field of processing and distribution.

In the continuing effort to keep abreast of the dynamic changes taking place in the dairy industry, dairy cooperatives may find it of increasing importance to become larger also, and that the most rapid way to grow is by merger. Relatively few dairy cooperatives merged prior to World War II, only 74 according to one study. Since then, over 200 have merged, and 300 additional plants have been acquired by cooperatives. The gross annual sales of the 300 plants, however, amounted to \$200 million, no greater than the annual sales of plants acquired by a single dairy chain in its recent merger spree.

In 1924, the sales of the three largest cooperatives were about 50 percent as great as those by the three largest proprietary firms. By 1955, because of the faster growth of the national dairy chains, the three cooperatives represented sales equal to 14 percent of the three largest chains.

In a great measure, cooperative associations were organized as local institutions to bargain with proprietary handlers or to compete with them on the basis of local competitive forces. It is difficult for cooperatives to adapt themselves to grappling with a marketing pattern that appears to run counter to the interest of the present membership. But it is necessary to meet new forces of competition if cooperatives are to survive to advance the interests of dairy farmers tomorrow.

The cooperatives of tomorrow may be quite different from the typical local institutions from which they emerged. In a big economy, however, cooperatives represent the only way that dairy farmers can exercise their muscles in efforts to obtain reasonable returns from the sale of milk.

A PRODUCER ORGANIZATION'S EFFORTS AT CONTROLLING SUPPLIES AND MARKETING NEW PRODUCTS

A. L. McWilliams, Pure Milk Association

Why control supplies? U.S.D.A. Outlook: 128 billion pounds for 1961. A new record. Federal Market Order statistics for September show Class I sales up 3½ percent; production up 6 percent.

Controlling Supplies

The problem of the marketwide pool which is most common type.

Sharing of Class I price with surplus plants.

Encouraging increased production from present producers.

Surplus on 3 markets: Boston, Chicago, and New York exceeds U.S.D.A. purchases.

Propaganda which encourages high production and leads to ruinous prices.

Example: Poultry.

The most fervent apostles of "free enterprise" are most flagrant abusers.

Fundamentals

In order to maintain dairy farmer income, we need some monopolistic-type of control such as is employed by other segments of economy. Business example: Comparatively few "leader" companies in dairy business.

Small companies follow "leaders" and have managed to either operate profitably through special advantages or, as has happened in past several years, many have sold out to or merged with larger companies. (Merger every other day).

Chicago market has approximately 50 dealers. Four dealers have about 60 percent of the business. These are the price leaders. Some small companies may undersell them but these companies establish the retail prices.

Labor

Economics of scarcity. Short work week, vacation, and so forth are made possible by administered prices. Wages established through economic force assisted by Government.

Labor unions have semigovernmental authority in enforcing wages, hours, dues, and membership.

Their organized refusal to work coupled with the power to keep others from working, has given them an almost complete monopoly in the labor market. This power does not seem likely to be diminished. This is how some businesses and unions control their surplus.

How can surplus be controlled in milk markets? There are a number of methods we have considered and some of which we have used to control our surplus.

1. Reduce the price.
2. Individual handler pool. Federal Order.
 - a. Advantage - Handlers restrict amount of milk which they will accept in order to maintain "blend" price.
 - b. Disadvantage - Variable prices to farmers. Handlers control market completely. Co-ops at great disadvantage. Farm prices must be administered by Government because of lack of farmer bargaining power.
3. Accelerated quality standards--universal Grade A, compulsory bulk tanks, and brucellosis-free herds.
4. High prices for manufacturing classes in pool. This limitation is not effective against cooperatives. Also tends toward flat price plan with unsettled marketing conditions and loss of market similar to individual handler pool.
5. Base plan. Probably fairest if properly set up. Difficult to administer in unregulated markets. I believe it should be used as a brake rather than as an absolute limit on production.

Agriculture has certain prerogatives, too.

Co-op laws give farmers right to organize.

Subject to anti-trust action. Chicago consent decree.

Federal Orders - Supply-demand philosophy with no limit on supplies.

State regulation - This is a field which has promise if State officials will cooperate. The negative side of State regulation proves its effectiveness.

Pure Milk Association's experience with State and municipal barriers.

Threat of permit revocations in Louisiana, Georgia, Florida, and St. Louis.

How do these barriers operate? Permits issued by health departments or departments of agriculture. Threat to local dealers or at least fear of reprisal by local dealers if they purchase out-of-State milk. Why are these wrong? Because they establish market restrictions on out-of-State milk without any on local market.

This may be a sound political solution but certainly is not a desirable or effective economic measure.

Some things we have done to control supplies in the Chicago market.

1. Federated Dairy Cooperatives. Individual producer bases established under Federal Order during months of September, October, and November are used in months of following year for paying out super pool (35 cents cwt.).
2. Pool plant qualification under Federal Order 41. Requires 40 percent of milk must be shipped to market during months of August, September, and October in order to participate in pool for following year, or they may participate by shipping 30 percent every month of the year. These measures have not been particularly effective. Receipts up 3½ percent for September.

States could be helpful.

1. Establish marketing laws which could be employed to assist producer groups in marketing.
 - a. Vermont quality program with promotion to consumers.
 - b. California and Virginia market quota plans.

Plans should be subject to producer approval and be canceled if rejected by vote of regulated producers.

Marketing new products - Concentrated milk - New low-butterfat spread

1. Concentrated milk developed in cooperation with the University of Wisconsin. Attempts to find new markets were not particularly successful.
 - a. Southern Wisconsin - Price not competitive.
 - b. Southern States - Trade barriers. Health departments and departments of agriculture.

c. Foreign markets - Problems connected with perishability.

2. A new low-butterfat spread. Questionable benefit to dairy industry during surplus production years.

Conclusion:

Dairy production and consumption can be brought into balance at prices that will maximize farmer income.

1. New markets and expanded sales can be helpful. State departments of agriculture can:
 - a. Promote higher quality standards particularly in surplus areas.
Example: Cottage cheese and ice cream.
 - b. Help sell consumers on the goodness and healthfulness of dairy products.
2. I believe dairy farmers will support market quotas to balance supply and demand. States can help by sponsoring legislation giving farmers the opportunity to set up the necessary organization to establish production goals which will enable them to increase their net income and at the same time relieve the taxpayers of the burden of purchasing unneeded and unwanted surpluses.

THE RETAILER'S VIEW OF HOW TO EXPAND SALES

Glen Woodard, Winn Dixie Stores, Inc.

We in the retail end of the dairy business are ever on the alert to find ways and means of increasing our business and expanding our markets.

In order to expand sales, we must first take a look at our customer and find out all we can about her. My boss is the American Housewife--Mrs. America. She controls 65 percent of this country's natural wealth; she owns 53 percent of all the common stocks; 65 percent mutual savings bank accounts; she is the beneficiary of 65 percent of all wills; pays 80 percent of the inheritance taxes; and is the named beneficiary of 85 percent of all life insurance policies. Most important of all, she does 95 percent of the grocery shopping in America. You and I may think we run our businesses, but our very existence depends on her whims and desires.

Mrs. America likes the mass distribution supermarket technique of merchandising. She is a good judge of values and quality. The whole concept of this relatively new mass distribution system at the retail level is based on a method of selling called "impulse buying." The impulse buying technique is based on letting the consumer sell herself. She now goes into a supermarket, looks over the merchandise, selects what she wants in any quantity she desires and loads up her basket and proceeds to the check-out counter. If she likes what she sees and believes it is a good value, she will fill her basket--if not, she will depart and go to the store which she thinks will have what she wants at a price she is willing to pay.

To make this self-service, or self-selling, program work, several factors must be present. First, Mrs. America must convince herself the product is a good value; second, a full adequate supply must be available; third, the product must be displayed in such a manner as to attract her attention and create an impulse for her to pick it up and put it in the basket; and fourth, and probably most important, it must be of a consistent quality. If it is good today, it better be of the same quality tomorrow, next week, next month, and even next year. If she isn't satisfied and thinks this product is of poor quality, she may never try it again.

Members of the American food industry from the farmer-producer to the retailer must realize we are faced with a limited market, that limitation is the size of the human stomach. The average stomach will hold 20 ounces of food. The per capita consumption of food has changed very slightly since the depths of the depression in 1933. It stays in the neighborhood of 1,500 pounds per person. During the past 30 years, however, we have changed our diet. Today we consume more dairy products, except butter, more eggs, meat, fish, poultry, citrus fruits, and tomatoes. The American diet is about 8 percent to 10 percent lower in calories than 50 years ago.

The dairy industry must realize it has to compete with all other food items for its share of that 20 ounces. If you want to expand your sales, the only way you can do it is by getting a bigger share of that amount. The total volume of all foods has, of course, increased because of the population increase in America, but the per capita consumption remains the same. Through various merchandising techniques, we retailers can, to a degree, shift the consumer from potatoes to grits, or from beef to chicken, but we have a hard time getting around that 20 ounces. Remember the four points I mentioned earlier; value, adequate supply, display and consistent quality. If any of these four standards are not met, you won't get your share of the 20 ounces.

We like to sell milk and dairy products. We know these are good traffic builders and will bring our boss, Mrs. America, into our stores. Recent studies have shown some very interesting facts about our customers. Better than 60 percent of all customers who come into a store buy something from the dairy department. Various milk industry studies indicate that better than 50 percent of all fluid milk is sold through retail stores. It might be interesting to note that 6 percent of all customers bought canned milk.

Fluid milk sales account for $3\frac{1}{2}$ to 4 percent of the total dollar spent in the average supermarket. Ice cream accounts for about 1.5 percent of the dollar volume. The whole dairy department will bring in about 10 percent of the volume. This figure varies with the various accounting and operating methods, depending on which items the store includes in the dairy classification. Fluid milk is allocated about 1 percent of the total selling space.

I can see many of you saying to yourselves--"The retailer should go all out and push fluid milk more than any other item because of the volume he gets out of such a small space allocation." It sounds good in theory, but let's look at the picture a little closer. In checking over some figures in our own operation the other day, I found that our markup on fluid milk was about 8 percent. Remember, this is a perishable product which must be kept under refrigeration. Most retail operators feel they must have at least a 20 percent

markup on a perishable product to come out with a profit. When you figure just the item of a 6 percent payroll factor, it can readily be seen how much profit a retailer stands to make with an 8 percent markup. The recent Dillon Study showed that ice cream which produced 1.5 percent of sales had an average margin of 20 percent. Wouldn't you much rather devote a little more time to ice cream if you were running a retail store?

I consider myself a part of the dairy industry in view of the fact that better than 50 percent of the fluid milk is sold through retail stores. Just recently in a State where we operate, the milk control board granted a price increase for the producers and distributors across the board. They gave the retailer no increase on half-gallons or gallons, but did give us a slight margin increase on quarts. It might be healthy to have retailers on the various State milk regulating agencies.

A look at some figures quoted in the March 1960 issue of the American Milk Review will give you a pretty good picture of how the American consumer is changing her buying habits. In the past 4 years, the sale of fluid milk in quarts has dropped from 55 percent to 16 percent of the total volume--while at the same time the volume of half-gallons has increased from 30 percent to 75 percent. A most interesting phenomenon has been the tremendous increase in powdered milk sales. In one of the States in which we operate, we sold the equivalent last year of 2 million gallons of fluid milk in powdered form. The consumer feels it is a value and has been of consistent quality. This powdered milk deal could open up new marketing opportunities.

Everyone here is familiar to a much greater extent than I am with the work that is being done within the field of concentrated and sterile fluid milk. I am told it is now possible to produce a container of fluid milk which will have a shelf life of 30 days. Many qualified experts in the dairy field believe that one day fresh milk will be packed in a container and put on the shelf and sold like a can of beans. If this day should ever come, it would be a tremendous factor in stabilizing milk markets.

Because fluid milk and dairy products are of such importance in the marketing plans of any retailer, he is constantly studying ways and means of reducing the cost of distribution. The low markup on fluid milk is a prime reason for many retail operators experimenting with "platforming." He will pick up his own milk supply at the processing plant and deliver to his own outlets. Many distributors have expressed alarm. I have heard statements made that delivering processed milk is a highly technical and complicated operation. I, for one, do not subscribe to such a thesis. The basic problems in milk delivery are speed and temperature control. A retailer who can handle bananas certainly should be able to deliver milk. In the handling and delivery of bananas, both maximum and minimum temperature must be governed. On top of that, the humidity is rigidly controlled. Certainly, a milk carton does not bruise, but bananas will.

The American Milk Review of March 1960 published a study of milk distribution costs for about 80 distributors over a 4-year period. Most of the increase in costs for these plants was in the delivery phase of their operation. Regular operational expenses increased by 0.9 percent. However, the costs of

delivery soared by 12.1 percent. These figures, in my opinion, indicate a fertile field for imagination and ingenuity within the industry. If a retailer can use his already established delivery system and is going to a certain location already, then why shouldn't he utilize it for the delivery of milk? Why send two trucks to an area when one can do the job?

We have had the experience in some marketing areas where rigid price control laws have forced the retailer to sell his milk on a cash and carry basis at the same price as the home delivered route. All retailers with whom I have talked, believe that cash and carry prices at the supermarket level should be lower than home delivery. We don't see how you can carry credits; deliver 2 or 3 quarts of milk per stop; pay a driver's commission; and maintain your truck and all the other delivery expenses of this type of operation as cheaply as making a one stop delivery of a whole load to a retailer. We believe it is cheaper to deliver to the store, and the consumer should receive the benefit of this cost savings. The stubborn refusal of a milk control agency in one of the southern States to recognize these facts was the main cause of the collapse of the pricing structure of the agency--resulting in a lengthy period of disturbed markets. Home delivery is a luxury and must be recognized as such and a price structure developed which recognizes these economic facts of life.

One of the factors contributing to the growth of the sales of the "Gallon Jug" has been increased packaging costs. The half-gallon paper carton came into being because of this situation. It was just another step to the gallon. Many are convinced we will soon see paper gallons. In the study of distribution costs which I discussed previously, we find container costs have declined 3 percent in the 4-year period. This is solely attributable to the shift to larger size packages.

I could go on at great length and discuss various marketing gimmicks and promotional methods to expand the sales of dairy products. None of these are of any worth unless we fully understand the mass distribution marketing system of impulse buying. When you understand this, you will be better able to expand dairy products sales and get a larger share of the 20 ounces.

STATE EFFORTS TO EXPAND SALES

Robert J. Williams
Wisconsin Department of Agriculture

The State of Wisconsin has a definite interest in the promotion of dairy products for several reasons. The primary source of income on Wisconsin farms is derived from the sale of dairy products amounting to well over \$500 million annually. The economic well being of the rural population, which incidentally is 20 percent less than the total population, directly affects the businesses and economic status of urban areas within Wisconsin. Wisconsin's location, climate, soil, and topography lend themselves to dairying versus other types of farming. The future of Wisconsin's dairy industry depends on the sales of manufactured dairy products in other States due to location relative to major consuming markets. For example, it is estimated that we sell 85 percent of all manufactured dairy products in out-of-State markets. Confining remarks to the distribution of cheese we are dependent upon retailers and ultimately consumers

for consumption of 90 percent of our cheese. Also, in the interest of being of service to the dairy industry, the Wisconsin Department of Agriculture's Markets Division has been delegated the responsibility of promoting the sale of Wisconsin dairy products.

The responsibility has taken several avenues of approach which directly and indirectly affect sales and service in retail stores.

1. Basic to any promotional effort, retailers and consumers are interested in quality products. Retailers are interested in handling quality products with a high potential for repeat sales to customers. The department of agriculture has various rules and regulations to assure quality production and handling from the farm to the finished products. Uniformity of product is assured by the State grading program. Price of products is also important but quality is basic to any promotional effort.
2. The second avenue of approach which affects sales and services at retail stores is by out-of-State promotion of cheese.

I would like to explain the financing and actual procedures involved in carrying out a Wisconsin out-of-State cheese campaign.

1. This activity is carried on by the Markets Division of the Department. Salaries of two dairy marketing specialists, a home economist, and "Alice in Dairyland" are included within the Markets Division's budget. Additional funds for actual promotional materials, travel, engaging a public relations and advertising firm, and promotional activities is appropriated by the legislature annually.
2. The procedure used in developing an out-of-State campaign involves the following steps:
 - a. Determine in which markets to carry out a major cheese promotion campaign. The choices of markets is limited to about 65 major markets. It is felt that more effective results are obtained by carrying out major campaigns in larger cities throughout the United States.
 - b. Wisconsin cheese assemblers and regional chain headquarters are polled as to choice of market and timing of promotion. Inquiries are made as to who the department and advertising agency should work with in each market. The assemblers, retailers, and distributors are given the opportunity to supplement department funds for purchase of newspaper ads, television, and radio spots. This gives the chain, the retailer, or the distributor the option to purchase advertising for his particular brand on a more economical "package" basis through the advertising agency which is engaged by the department of agriculture. None of the budgeted funds of the department are used for brand advertising. In other words, our funds are used entirely to promote Wisconsin cheese.

- c. The second step involves an advance trip into the market. One or two marketing specialists and a representative of a public relations advertising firm make this trip to contact personally the designated people within the market and also to arrange for TV and radio spots, newspaper advertising, personal appearances and other public relations activities. This trip is made at least 6 weeks in advance of the promotion week.
- d. From the time of the advanced trip to the actual promotion, contacts are maintained for purposes of coordinating activities, sending point-of-sale material and clearing up miscellaneous details. Communication is maintained with assemblers, retailers, and distributors to keep them informed of the progress of preparations for the cheese promotion.
- e. The next step is the actual promotion week. During this time, we attempt to saturate the market with various advertising media consisting of TV spots, radio spots, point-of-sale materials; and personal appearances of "Alice in Dairyland," marketing specialists and our department nutritionist. Retailer cooperation is necessary to make the promotional efforts complete. Retail store activity is varied due to policy and promotional commitments, space, and costs.
- f. After the campaign is over a questionnaire is sent to all contacts in the market to get an expression of the effects of the campaign as to increase of sales during and after the campaign. Personal comments and judgments are also asked for on the questionnaire. The success of the promotion is also measured by the increasing amount of cooperation and requests for repeating the campaigns year after year. I believe the success of this type of promotion is based on several factors.
 - (1) Wisconsin has an adequate and sustained year-round supply of cheese.
 - (2) Wisconsin has a uniform and quality product which has retailer and consumer appeal.
 - (3) Wisconsin has a national reputation for cheese which we attempt to capitalize on in our promotional effort. The promotional effort is pinpointed to retailer and consumer level.
 - (4) It affords the Wisconsin assemblers an opportunity to contribute to and develop a market by cooperating with the State department of agriculture. Sustained effort by the industry must be directed to maintaining sales in established markets.
 - (5) It gives the retailers and distributors an opportunity to get maximum results for individual store advertising during the campaign by tie-in types of promotional media.
 - (6) The approach gets the greatest returns for dollars spent due to coordination of efforts and mass production of promotional materials. Other States advertise and promote their commodities probably to a greater extent than Wisconsin does in terms of amount of money spent. For example, during 1959--\$1,193,000 was spent for promoting Washington apples; \$3,000,000 for

Florida citrus; \$835,842 for Idaho potatoes; over \$2,000,000 for California wine. The Wisconsin Cheese Week promotion is conducted on a local level in specific markets and directed at specific consumers. Advertising money is spent on local radio and TV and local newspapers with a complete follow through to point-of-sale with merchandising material at the store level. Complete liaison is maintained between the Wisconsin cheese industry and local retailers. This is the reason the Wisconsin Cheese Week promotions show effective and tangible results in the form of increased sales for a small expenditure of funds. In addition to our major cheese week promotion campaigns, we also carry on the so-called special campaigns. In this case, one retail group in a specific market is serviced by providing promotional materials and personal appearances of "Alice in Dairyland."

In conclusion, I believe the State departments have an obligation and an opportunity to be of service to their own dairy industry and retailers of their product and, finally, to consumers.

STATE EFFORTS TO EXPAND SALES

R. B. Wilson, Purdue University

State efforts in expanding dairy sales range from Indiana with an occasional promotion, to Wisconsin with intensive efforts where a team of marketing specialists with a "princess" conducts promotional campaigns in major cities throughout the Nation. A survey of agricultural promotion activities made by the National Association of Marketing Officials showed 14 States with dairy commodity promotional programs in effect under State legislation in 1958, and 5 States with promotional programs in effect under State legislation for the agricultural food products produced in the 5 States. In addition to these activities we have those of the American Dairy Association, retailers, and a score of other groups. If I sense the feeling of the producers correctly, dairy promotional activities are likely to grow in the future.

Promotion of agricultural products is "big business," some of it very successful and some not so successful. Are there guidelines for promoting products without evaluating such efforts? Here are some recent research findings and points which should be considered before a group sets up a promotional program and periodically after the program has been established as they revise their programs.

Programs ought to be "geared" to what can be done. According to University of Minnesota agricultural economists, "general-purpose promotional programs designed to increase the sales of 'food' as opposed to nonfood commodities are not likely to be effective." "The promotion of specific foods should prove more successful than the promotion of 'food' because it can be translated (1) into group action by commodity producer-processor groups, and (2) into meaningful consumer product substitution." "Promotion of an individual brand or a particular food item is likely to have the greatest response among consumers

but it is also likely to take the form of the substitution of one brand for another brand of the same product. Thus, the net effect on total per capita food consumption of a program of brand promotion is likely to be small or negligible. While such a policy may be very effective for the individual company trying to market a particular line of food items, it will be ineffective in increasing total food consumption." 1/

If you are concerned with promoting a specific dairy product or an individual brand, check it against the following characteristics; the more of them that exist the better the chance for successful promotion:

1. Differentiation - A "different" product. This may be done through a different package, better service, better quality, or other ways. The point is that your product needs to be different in some way so there is a reason for buying it instead of something else.
2. Quality consistent with claims. It doesn't always need to be the best quality product, but it should be consistent with claims and usually of good quality. Customers who find quality to be below that claimed for the product are not likely to come back.
3. Uniformity - Why? We are in a day of mass buying and mass merchandising. A uniform product enables large buyers, such as buyers for supermarkets, to buy for their many units with a minimum of expense and trouble. (Supermarkets handle more than "three-fifths of total food sales.) Handling, pricing, and advertising are also made easier. Similar advantages accrue to processors and assemblers as well as distributors. And more important, uniform products enable consumers to buy with greater assurance of what they are getting and help lead to repeat sales.
4. Adequate volume - This gives many of the advantages listed above--ease in buying, pricing, and advertising for assemblers, processors, and distributors, as well as consumer convenience.
5. Competitive price - A 1957 Purdue study showed that price was one of the major factors considered by buyers for 96 supermarkets in selecting their sources of supply for eggs, broilers, watermelons, and peaches. This is probably true elsewhere for other buyers and products.
6. An increasing demand trend - It's usually easier to promote a product which is enjoying an increasing demand trend than one with an adverse trend. With sales expanding there is an opportunity to strive for part of an increasing total.
7. Strong hidden qualities - For example, the purity of a drug, the purity of a grower's apple cider, or low-fat content of turkey.

1/ J. M. Wetmore, et. al., "Policies for Expanding the Demand for Farm Food Products in the United States, Part 1," Technical Bulletin 231, University of Minnesota Agricultural Experiment Station, April 1959, p. 41.

8. Strong emotional buying motives. Examples here are buying oranges for health or milk for protein.
9. Adequate budget. Not all promotion needs a large budget, but it is well to remember that promotion is often costly. If an adequate budget isn't available, chances for success are decreased.

If these characteristics exit, your product has a greater likelihood of being successfully promoted. And remember that (1) each case is different, (2) how promotion is done may be as important as the amount of money used, (3) a great deal of promotion is already being done by retailers as evidenced by newspaper ads each Thursday, and (4) much promotion is being done by agricultural groups in the United States. In 1958, over 1,100 such groups engaged in promotion. These groups spent about \$67,000,000 during the fiscal year ending in 1958 for the promotion of agricultural products. 2/

Many producers feel all they need to do is raise a "pot" of money and their worries are over, but that isn't so. They might well take a hard look at each proposed scheme, realizing that promotion is only one part of a sound merchandising program. Prices, services, and other factors should also be geared to the promotion program.

And promoting just because other industries are doing it successfully doesn't necessarily mean that all dairy products can gain from the same kind of promotion. This isn't meant to pour cold water on promotion, some of which is very effective, but to point out that promotion is only part of the answer.

Using the characteristics listed above, you can judge how the dairy products you are concerned with measure up for possible promotion, either by an individual or on an area or State basis. Are the products differentiated, or are they like many others? Are they of a quality consistent with claims, coupled with uniformity, adequate volume, and competitive price? Is there an adequate budget to do the job? If the above characteristics exist the retailer will be more likely to help you promote dairy products in stores, and often it is of more value to "sell" a large retailer on the value of promoting dairy products than to attempt to influence thousands of consumers. It will be well to place yourself in the position of the retailer as you look at dairy products and promotion. He has over 5,000 items on his shelves and the competition for shelf space is terrific. Unless the dairy products concerned meet his needs it will be extremely difficult to expand sales of dairy products in retail stores.

MORE EFFECTIVE APPLICATION OF DAIRY MARKETING RESEARCH THROUGH GROUP ACTION

William H. Alexander, Louisiana State University

Not many years ago, most of the farm marketing of dairy products was performed by the farmer. Under present marketing systems, it is performed by specialized

2/ Promotion of Farm Products by Agricultural Groups, AMS, U.S.D.A., MRR No. 380, January 1960.

firms or groups of marketing specialists. It is the coordination of these groups with which we are concerned.

Applied marketing research can hit more targets if the range is confined to problems in the scope of affected areas. If researchers and the groups affected are both on the same team, the ability to score more hits is considerable. Each can provide talents the other lacks. If milk producer associations, handlers, extension workers, and regulatory agencies compose the group with which we are concerned, undoubtedly the researcher fills an important position in structuring the research activities of the interdisciplinary committee in the solution of marketing problems.

It is unlikely that producer associations or handlers are skilled in research methodology, nor can they wholly free themselves from commercial distractions inherent in their positions, although both groups may be painfully aware of the need for an early solution to some critical marketing problem. In this case neither the researcher, handlers, cooperatives, or other members of the task force may be able to do much about it alone. Together they may make significant contributions to public and private welfare.

Within a given marketing area the composition of the task force or team and the type of problem-solving activity to which they address themselves is a function of aggressive participants from the relevant areas. If an overall approach is to be taken in the solution of dairy marketing problems within a given area, the initiative must come from those individuals who have interest enough in the problems to aid in the direction of the research. They must furnish leadership and direction. It is the function of the marketing economist to coordinate and plan the research in such a manner that when the results are obtained, they will fit into the market pattern.

In this connection, we must not overlook the function of regulatory agencies, both State and Federal, in the marketing of milk and dairy products. Research findings of the highest order can be useless if they cannot operate within the framework of accepted regulatory disciplines within the industry. For this reason, representatives of regulatory agencies should be members of the group to plan research involving group action projects where application of results is influenced by regulation. Furthermore, participation by regulatory agencies may facilitate the acquisition of relevant data for the research.

It is recognized also that the marketing economist may need to consult with researchers in other disciplines, such as psychologists, sociologists, and engineers in setting up research designs to provide useful results. Admittedly, the participating group could become unwieldy unless sound judgment is followed in selecting the participants. Careful selection of the disciplinary group will help to tailor the contributions of their respective disciplines to the solution of the problem.

Statewide Dairy Marketing Problems

Research and group action with Statewide application may best be demonstrated by the experience encountered in preparation and enactment of Louisiana's Orderly Milk Marketing Act of 1958. I use Louisiana in this example, not because we have done more or better work in this area than has been done in

other States, but because I am familiar with it. This Act is concerned with unfair trade practice regulation in the marketing of milk. Need for the legislation was created when handlers of chain dairy firms in one section of the State sold milk in another section for an extended period of time (about 6 months), at prices below procurement costs. The initial attack on the problem was a request by small independent dairy firms in the affected area for the preparation of proposed legislation which would prevent sales below cost. After the first draft of the law was prepared, the independent handlers throughout the State became interested in assisting with the preparation of provisions of the regulation, since it would affect their operations directly.

Producer associations became interested in assisting with the regulation when they discovered that it did not include provisions for pricing milk to producers. They considered that producer-pricing provisions were necessary to prevent imputation of price to producers based on the relationship of the handler's cost to prices paid by consumers. With producer associations and handlers working together, the quality and workability of the regulation was improved. Consolidation of the provisions requested by each group into a single regulation approximating the image desired by them was the function of the dairy marketing economist. Efforts of producer associations and handler groups were joined in mustering the votes necessary for passing the legislation. Litigation involving the Act has resulted in it being proclaimed constitutional by State District, State Supreme, and U. S. Supreme Courts.

One of the most important benefits of the Orderly Milk Marketing Act stems from the fact that it forced each group to recognize that its problems are associated with those of the other and that solutions can be achieved by group action.

Regional Dairy Marketing Problems

Considerable dairy marketing research has been done on a regional basis. Regional inventories of supply and utilization of milk have been completed in all regions. Studies have been made on the movement of milk between regions, and many other problems which are regional in scope. The existence of regional research projects illustrates the recognition of the importance of group action on problems which cut across State lines. The committee or group action approach has long been recognized as the best method for solving problems of this nature. For example, the New England Research Council was organized in the 1920's and has continued since that time in coordinating the dairy marketing research of the New England States.

In each region of the United States, dairy marketing groups within the region have organized a "Dairy Marketing Conference." This provides for joint action on regional dairy problems. The "Conference" membership includes producer associations, agricultural extension personnel, State department of agriculture personnel, and university dairy marketing and research personnel, and others. The structure of the "Conferences" is ideal for almost any type of group action where dairy marketing problems are concerned.

In summary, the problems involved in initiating, conducting, and making effective use of the findings of dairy marketing research are the responsibility of those whom it affects. It challenges the best individual and collective thinking of all disciplines it involves.

Producer groups in some areas seem to be in a contest with producer groups in other areas to determine who takes over certain markets. On the other hand, producer groups and handlers seem to be in constant struggle over problems that are vital to the survival of both. It is in these areas where early and sound solutions to problems that are industrywide, that group action must play an increasingly important role if the dairy industry is to fulfill its obligation to consumers and function in a socially accepted manner, both in terms of conduct and operating efficiency.

GROUP ACTION TO DEVELOP INTER-REGIONAL MILK MARKETING ORDERS

John C. Blum, AMS, U. S. Department of Agriculture

The impact of technology on the marketing of agricultural products has been noted frequently during the course of this Workshop. In our dairy work group sessions there also has been frequent mention of the effects of technology on dairy marketing, particularly in the case of fluid milk.

As milk has moved over wider areas in recent years, fluid milk markets have been brought closer together in an economic sense. The concept of small self-sufficient local markets is gradually being replaced by a network of overlapping and interdependent supply and sales areas, with milk moving over long distances and being shuttled back and forth to meet changing market needs. Increasing specialization, larger scale organization of marketing firms, and greater attention to price alignment and competitive relationships among markets also have accompanied technological change in fluid milk marketing.

Fluid milk marketing orders must be tailored to existing market conditions, and they likewise have changed with the times. As the scope of milk marketing has widened, the scope of milk marketing orders has had to keep pace. This has placed greater pressures on the need for price alignment among markets and has required us to reappraise other types of order provisions as well.

Although the size and scope of marketing areas under milk orders has been growing larger in recent years, there are differences of opinion as to how far this trend should or will continue. Some people talk in terms of an eventual single fluid milk marketing order for the entire United States. Others foresee a number of large regional orders, each covering a sizable area of the country. Still others foresee a continuation of separate orders tailored to local markets with greater emphasis on coordination among markets.

We know from our experience with the Federal program that milk marketing areas and the scope of milk order regulation have been expanding and this trend undoubtedly will continue. We have had 10 consolidations of milk orders in recent years, and in addition, most orders have had one or more marketing area extensions. Further, we have had to devote increasing attention to problems of coordination among orders to keep abreast of changes in the dairy industry.

With 80 Federal milk orders in existence at the present time, we are faced with the obvious question of whether consolidation or coordination offers the best hope of accommodation to changes in the dairy industry. The answer to this question involves many considerations.

One important consideration is that size of area and homogeneity of economic and institutional factors are usually inversely related. Our experience indicates that the larger the area involved, the more likely we are to have a disparity of economic conditions within the area. And the application of uniform order provisions to differing market conditions does not necessarily yield uniform marketing results.

Price differences among markets also provide an incentive for the movement of milk in accordance with relative market supplies and needs. The extension of marketwide pooling over larger and larger marketing areas eliminates price as an incentive for milk movement with the larger areas.

As the scope of marketing orders becomes greater, the scope of cooperative activity also must become greater if cooperatives are to continue to occupy the key role in the program which has been given to them by law. Unity of cooperative effort is essential to the successful operation of milk orders under present law.

Greater unity of cooperative effort can be achieved in a number of ways. The merger of cooperatives is one way. The development of joint marketing programs by individual cooperatives is another. The means is not so important as the end to be achieved--united effort to deal with a common problem in an economy which is characterized by large and continually growing size of marketing firms.

On the question of consolidation versus coordination of Federal milk marketing orders, the Department has developed no fixed policy. We have tried each approach to a degree in the Northeast. When we expanded the New York-New Jersey marketing area to nearly double the scope of regulation in 1957, we introduced some of the elements associated with a large regional marketing order. When we decided more recently to maintain separate orders in New England and to rely on greater coordination of order provisions to bring about an integrated marketing system, we followed another approach to a somewhat similar problem. We are studying both of these situations to see what they teach us concerning future problems and policies under the Federal milk order program.

Regardless of what the future holds with respect to this question, the trend toward a more unified and inter-related marketing system for fluid milk may be expected to continue. This will require continued group action by producers and their cooperative associations to expand their scope of activities, to keep pace with changing economic conditions.

CONCLUSIONS AND RECOMMENDATIONS

of Work Group on Dairy Products

Principal emphasis during the first day sessions centered around the rapid expansion of fluid milk marketing and distribution areas and what this means in terms of changes in Federal, State, and municipal regulatory programs, marketing service programs of State departments of agriculture, and the marketing programs of cooperatives. Although there was considerable diversity of geographic and economic interest displayed in the discussion, it was agreed that marketing officials must keep abreast of these changes if they are to continue to be of service to the industry.

The ensuing discussion following a talk on the institutional market and its dairy product needs developed recommendations that marketing officials could assist the food service industry in better serving institutional markets by: (1) Helping it find quality products, particularly in remote areas; (2) assisting in the solution of management problems; (3) advising as to "best buys" for a particular period; (4) finding ways to reduce transportation costs; (5) developing more suitable packages; (6) promoting dairy products on their merits; (7) working more with State restaurant associations; and (8) observing dietary trends and facilitating industry adjustments to them.

Three recommendations emerged from the discussion on expanding service and sales in retail stores: (1) When a State promotes its own agricultural products, it should aim its promotional program at areas where the product can be sold, e.g., California would be ineffective in promoting California avocados in Florida. (2) Retail stores can exert considerable control over the sale of a particular product through promotion, shelf position, and so forth. However, when a State or an industry goes to a store for help in a promotion program, it should be in a position to state what contribution it can make to supplement the effort of the store. (3) Some States have regulations concerning refrigerated dairy cases in retail stores. These regulations should be re-examined to see if modifications can be made which would expedite promotion of dairy products in the store.

The session dealing with improving marketing through group action resulted in the following recommendations: (1) Dairy industry commodity groups must submerge their diverse interests and work together more effectively in the fields of research and regulatory activity; (2) regional marketing groups should assume greater responsibility in identifying marketing problems on which work is needed and in coordinating marketing activities; (3) more producer education is needed concerning the operation of milk marketing orders; and (4) greater assistance to cooperative associations is needed to enable them to expand the scope of their marketing activities and keep abreast of changes in the dairy industry.

FRUITS AND VEGETABLES

Work Group Sessions

FUNCTION AND LIMITATIONS OF MARKETING ORDERS IN SOLVING FRUIT AND VEGETABLE MARKETING PROBLEMS

K. W. Schaible, AMS, U. S. Department of Agriculture

A marketing order program is one tool that may be used in solving fruit and vegetable marketing problems. These programs are authorized for fruits and vegetables under the Agricultural Marketing Agreement Act of 1937. The Act itself imposes no restrictions. It provides methods for restricting shipments. The decisions to use the programs and the methods of regulating are left with the growers. Properly used, the marketing order is a good tool but the skill with which growers and shippers apply it determines its success in solving marketing problems.

Any marketing order proposed should be geared to problems confronting the production area. For example, today most areas face the problem of fewer buyers as buying for chains, cooperatives and affiliations of retail stores becomes more centralized. Most also face the impact of mass merchandising under which conditions the commodity must be of such quality that it will sell itself. Under these conditions there is a need for volume sales of uniformly good quality produce, uniformly packaged.

To meet this typical situation a desirable program must provide for methods of restricting shipments to preferred grades and sizes, with authority to determine what containers may be used in shipping the commodity. Such an approach would permit the industry to meet modern merchandising needs and would provide facilities to change with the times.

Whatever program is proposed is the responsibility of the local industry. Representatives of the Department will help, but local leadership and support is needed for success.

Even after the program is approved by the Department and the required minimum of two-thirds of the growers or growers of two-thirds of the production, much of the decision making remains in local hands. All fruit and vegetable marketing order programs provide for local administration by local growers and shippers. They function through an administrative committee nominated by growers through usual election procedures and appointed by the Secretary of Agriculture. The principal duty of this committee is to recommend to the Secretary the particular regulations desired which are authorized by their order. They may, also, recommend changes in these regulations from time to time during a marketing season, or that regulations be terminated, if conditions warrant.

In effect, then, local growers and shippers, in cooperation with U. S. Department of Agriculture have the power to determine their own place in the marketing system. Within the framework of their marketing order, the major limitations on their program operations are: (1) The ability of industry leaders, selected by the growers, to visualize the scope of their marketing problems and how to cope with them; and (2) the ability of these leaders to muster and hold growers and shippers together and to motivate them to support self-imposed obligations of their program for the good of all growers. The major limitation in the use of marketing orders in solving marketing problems is traceable to lack of understanding within the industry.

The Act provides no authority for advertising and promotion. This, however, can be done through other organizations or as individuals. Yet, to advertise a commodity without assurance that it will be of acceptable quality would advertise the industry's failure to meet its responsibility to its customers. The two, marketing orders and advertising, could prove beneficial when used together.

The central objective or function of fruit and vegetable marketing orders is to help growers receive prices approaching the parity price for their produce. This may be accomplished by:

1. Regulating or providing methods for regulating quality; i.e. by grades, sizes, and maturity.
2. Regulating or providing methods for regulating the quantity that may be shipped.
3. Establishing surplus pools and methods of disposing of these pools.
4. Regulating or providing methods for regulating containers.
5. Regulating unfair trade practices and unfair competition.
6. Providing for marketing research and development projects.

These are the most common methods or functions of fruit and vegetable marketing orders. They are also the limitations, since these are essentially the only methods available under the Act by which marketing orders may be employed to solve marketing problems.

The methods may be employed individually or in combination. This is a decision of the local growers and shippers acting through their administrative committee. Federal marketing orders may also be used in combination with State marketing orders in States having such legislation available. Usually, both the State and the Federal programs operate through the same local administrative committee. Thus, they may shape the two programs to achieve a common objective.

Important, also, in these program operations is the effect of bringing together the various grower and shipper interests. In this way each becomes more aware of the others problems and experiences and shows a greater willingness to work together to resolve mutual problems.

Fruit and vegetable marketing orders cannot set prices. With few exceptions, they cannot regulate fruits and vegetables for canning and freezing. These exceptions are asparagus, olives, and grapefruit. They cannot regulate apples produced in States other than Washington, Oregon, and Idaho. They cannot regulate production. In many instances it is doubtful that they actually reduce the total volume moving to market. But they can restrict the rate of the movement and the shipping of price-depressing qualities and sizes. Thus, they can and do help build confidence and prestige in the markets for the areas with the vision, desire, and willingness to use them as one of their marketing tools to help themselves to a better marketing program.

The areas that survive under our current system of marketing must gear themselves to meet their competition with a uniform flow of good quality produce, uniformly packaged. Our highly competitive systems with centralized buying and mass merchandising demands this. Marketing orders are one means of helping growers and shippers to meet these problems. But able leadership and strong industry support are necessary to make the order work.

COORDINATION OF EDUCATIONAL ACTIVITIES WITH MARKETING ORDERS AND OTHER PROGRAMS TO IMPROVE MARKETING

J. E. Youngblood
South Carolina Agricultural Marketing Commission

It is appropriate that we take into account at the very beginning that agricultural marketing as a whole is getting more and more attention these days.

This condition renders it more necessary that the entire subject be given closer appraisal, particularly by those of us engaged in marketing work.

Let me first call to your attention the fact that marketing receives what is meant to be help from numerous bystanders. In this group are well-meaning civic clubs, other local agencies, and generally a sprinkling of organized or unorganized citizens. These good people seem to be intrigued with this business of agricultural products, distribution, and merchandising. Often they are quite free with easy solutions with which we in the work grapple day by day and month after month.

It is in a climate of change that we attempt these days to pitch marketing programs, whether they be in the form of marketing orders or more informal projects designed to market products more efficiently and more effectively. Conditions are complex to say the very least. We encounter forces working from within and from without. From the conception of a marketing program to the time it is in productive operation, there are many situations and conditions apparent.

In the consideration of these situations and conditions, I would suggest that the whole proposition calls for several techniques, several kinds of operators. This naturally and in turn suggests the use of several groups or agencies, each of which is especially endowed with skills and tools to do a particular job.

When we have a collection of several groups we necessarily inherit a set of relationships, whether they be warmly compatible or whether they be otherwise--and otherwise in varying degree. A look at this relationship thing is the burden of my brief discussion here. The one premise which cannot be ignored or compromised is the fact that any forward-reaching project is affected by the working relationships of the agencies involved.

On the outline for a marketing project of any kind on through to its satisfactory prosecution I would invite you to liken it to a building. In its construction we have first of all an architect who gives birth to the design, the length and height, the character, and the usefulness of the structure. He supplies the objective, the reason for it in the first place, its needs, and what it proposes to do. Then comes the general contractor who activates the brainchild of the architect and assembles the material and the workmen to do the job.

Now in this bunch of workmen are skilled operators. They have been trained in the art of doing specific jobs. We have masons, carpenters, painters, plumbers electricians, and so forth. Each makes his contribution. The work of each is coordinated into a general effort which results in a building.

Compare this with relationships involved in the make-up of marketing programs. The comparison must of necessity be rather rough and generalized. The coordination analogy must not be discounted at all, however.

Onto this picture we project the educational phase of the program. In introducing it I would preface the statement with the suggestion that we usually think in terms of the three. Educational, Service, and Research. Moreover, we

are likely to think almost automatically of Extension, State Departments of Agriculture, and the State Experiment Stations.

Let us not forget in our zeal to indict someone that there are many agencies with which we work and which influence our programs. To list a few I would mention health departments, education departments, S.C.S., F.H.A., crop reporting, Federal Land Bank, and others. In addition there are trade groups, civic clubs, and on and on. Not all involved in a given project, surely, but often found enlisted in one form or another. I submit to you that it is not possible to delineate to an exact degree where education starts and stops, or service, or research for that matter.

Let's take a hypothetical case. We wish to build a marketing program around a marketing order on a product. We would need something like this (and this isn't meant to be complete).

1. An analysis of the total program
 - a. Basic economic principles involved
 - b. Research data
2. Organization of the principles
3. Mechanics of putting it into operation
4. Servicing the deal
 - a. Inspection
 - b. Promotion
 - c. Actual fund raising and handling
 - d. Possible political pressures
5. Publicity and followup
6. Work analysis, from time to time

In such an outline can't you see where many contributing agencies fit? Can't you see where there is a need and plenty of room for them?

I shall make no attempt to spot educational activities per se into this picture. Suffice it to say they are there. So is service. So is research.

There is no space left for prejudices, jealousies, and counter-offensives. There are no evil spirits haunting the grounds where marketing projects are recounted. If they are there it's because you draw on your inadequacies and fears to the extent that you put them there. There is room, though, for a closer cohesion, a closer coordination of all efforts.

THE OPPORTUNITIES AND RESPONSIBILITIES OF THE MARKETING SERVICE
WORKER IN CONDUCTING A COMPREHENSIVE MARKETING PROGRAM

Vinton N. Thompson, New Jersey Department of Agriculture

Perhaps never before has our changing agricultural industry presented so many opportunities for the development of effective market service programs. The increasing specialization on our farms accompanied by vastly improved efficiency and high capitalization per production worker have resulted in our farmers marketing a greater share of their output than ever before. On-farm consumption of commodities produced on our American farms is rapidly declining except for grain and forage crops consumed by livestock. More than ever before our farmers are dependent upon efficient and progressive marketing programs which enable them to receive the largest net dollar return possible in relation to the current supply and demand situation.

Fruit and vegetable marketing has undergone vast changes in recent years. Only a few decades ago the shipment of fruits and vegetables to terminal markets by rail was the predominant practice in the industry. Increasingly we see large retail food distributors purchasing their fruit and produce needs at shipping points directly from large farmers and country point assembly markets. No longer does this merchandise pass through the terminal markets, but is moved directly to the food distributors' warehouse and then to the retail store where it is sold to the ultimate consumer. A more recent trend is produce moving directly by motortruck to the retail distribution point (store door delivery).

These changes in fruit and produce handling offer many opportunities for us to develop improved marketing programs at the producer level as well as in the grading, packaging, transportation, warehousing, delivery methods, and retailing of this merchandise. For example, let us take a commodity that is produced in large quantity in New Jersey--asparagus. This commodity, grown on more than 30,000 acres in my State, provides a classic example of producer indifference to the wants and needs of our modern American housewife. At present it is cut with hand labor and bunched by the farmer who then markets twelve 2½-pound bunches in a standard crate. While the asparagus spears in these bunches are usually uniformly sized, the bunches are often too large and contain 25 percent or more waste which must be trimmed off by the housewife after she purchases the product.

Consumers are no longer interested in products that are difficult to prepare or in products where they see much of what they buy going into the garbage can because it is inedible. Fresh asparagus sales are not increasing because our farmers are resisting change.

Here we have opportunity to do many things to improve consumer acceptance of our product. We are presently attempting to convince our farmers of the necessity to make radical changes in the package of asparagus they offer the public. One opportunity that has recently been developed by our Department of Agriculture and the College of Agriculture at Rutgers University is the pre-packaging of asparagus in a ready-to-cook plastic pouch with no waste and a high degree of convenience.

This new prepackaged asparagus is blanched, put in the package, sealed and then can be marketed over an extended period with or without refrigeration. The asparagus can be cooked right in the plastic pouch needing no preparation by the housewife, except seasoning after the removal from the cooking utensil. This new product will need market development assistance before it gains consumer acceptance on a large scale, but in our area such product improvement is essential if we are to maintain our share of the consumer's dollar.

Another opportunity presents itself in roadside marketing. Here the farmer can obtain the maximum possible share of the consumer's dollar for himself, since he performs all the functions from farm to consumer. As many areas of the country become increasingly urban in character, the opportunities of this type of marketing service program will continue to grow at a rapid pace. In New Jersey there are presently more than 2,000 individually owned and operated farm road stands. These stands range in size from small portable ones that are used to market only one or a few crops, to large, elaborate roadside markets that operate year-round and sell scores of products that are produced both on and off the farm, including such items as fruits and vegetables, honey, jams and jellies, pickles and relishes, nursery products, dairy products, and other food items. These stands gross from a few hundred dollars up to perhaps nearly a half million dollars annually.

An example of a recent opportunity to improve roadside marketing in this area was when a farmer entered the roadside marketing business for the first time this past summer. The New Jersey Certified Farm Markets, Inc., an association of roadside market proprietors dedicated to improved roadside marketing, requested our marketing service worker to call on this farmer. This was early in the summer and though the farmer and his wife were attempting to establish a roadside market they had no conception of how to display their merchandise properly. It took several visits by the marketing service worker of the department to show and convince these folks how to display merchandise in an attractive manner that would appeal to their customers. By the end of the summer season this particular market was enjoying a prosperous trade with customers who were coming back after having been satisfied on previous visits. On the recommendation of the marketing service worker extensive facility improvements will be made to this market prior to opening in the late spring of 1961.

This is just one small example of the opportunities that exist in marketing service work and roadside marketing in our State. What about the processing field in the fruit and vegetable industry? Here again lie opportunity to improve the products and develop new product lines for your area processors through marketing service programs.

For example, our division of markets has been able to suggest numerous opportunities to improve raw product procurement to the processors in our area over the past several years. One of our large asparagus processors desired to improve the quality in his glass pack of asparagus spears. In cooperation with his quality control personnel, our marketing service workers developed standards for a premium asparagus pack that would qualify for the use of the New Jersey State Seal of Quality as a means of identifying this quality product. This past season nearly 200,000 cases of asparagus were packed under a strict quality control program with the State Seal of Quality on the lid. This asparagus was

graded by department inspectors in the raw product stage as well as the finished product which also had to pass rigid standards of quality.

In conducting this work our quality conscious marketing service workers were able to make several suggestions to the plant personnel that improved the efficiency of their operations and consequently the quality of the asparagus pack. This processor increased his procurement of raw product from New Jersey farmers by more than 10 percent over the previous year and is desirous of securing a greater amount in 1961.

The marketing of white potatoes in New Jersey has presented many opportunities over the past several years. Only a few years ago practically all of our potato crop was marketed in 100-pound burlap sacks. Often potatoes were sold ungraded or graded U.S. No. 1 size A. The potato crop moved out fast in July, August, and early September leaving practically no supply to be marketed through the fall and early winter.

The trend in all areas has also been toward marketing potatoes in consumer packs of 5 and 10 pounds with more demand for washed potatoes, although this trend has not been as pronounced in the South when compared with other areas. These factors meant opportunity for the alert and aggressive marketing service worker in New Jersey. The potato farmers resisted change, and in fact a number of them stopped growing potatoes rather than face up to the changes that were occurring in the marketing system.

In 1958, the State Seal of Quality marketing program for white potatoes was developed with the backing of the New Jersey Potato Industry Council and the State Board of Agriculture. Since that time a gradual trend to more centralized grading and packing has occurred. A number of farmers have installed washing equipment and are now offering washed potatoes in consumer packages to the nearby metropolitan areas. As a result of these changes New Jersey potatoes are found in many New Jersey stores where they could not be found several years ago.

Improved storages are also being built to enable growers to take advantage of a longer marketing season and not be dependent on moving their potatoes over a short period which often resulted in a glutted and oversupplied market. Improved packaging, handling, storage, precooling plus organization for marketing are badly needed by the New Jersey potato industry. Here are areas that offer many opportunities to our market service workers.

We have discussed some of the marketing service workers' opportunities to develop comprehensive marketing programs. Such programs must be carefully thought out to provide all the elements necessary for successful marketing. This is the responsibility of the marketing service worker. He must be certain that a comprehensive program includes quality control, efficient handling, effective packaging, proper transportation, promotion, advertising, and point-of-sale merchandising.

Our marketing service workers are asked to coordinate any proposed marketing program with the Extension Service and Agricultural Experiment Station of our College of Agriculture at Rutgers University. In addition, major marketing

problems and marketing service programs are discussed by the State Marketing Council, which is made up of department of agriculture and college and extension personnel engaged in marketing or closely related activities. This Council meets four or five times a year. It also reviews current projects and helps determine priorities for the establishment of marketing service programs as well as marketing research projects.

The marketing service worker must constantly keep in mind the necessity for conducting sound marketing programs. There is no use beginning work with a commodity group that does not recognize the need for a quality product. Unless a quality control program is made part of a promotion program, the sale of the product may be harmed more than it is helped. It does not pay to call attention to a product of inferior quality or one that lacks any degree of uniformity.

The marketing service worker has a responsibility to the public as well as the commodity producers with which he is directly concerned. He must design his programs to give the consumers the best possible product at reasonable cost while still gaining for the producer as high a net return as is consistent with the above goal. Programs, if they are to be successful, must not be developed that price the product out of the marketplace.

Unlimited opportunities are before the marketing service worker. He must use his imagination and engage in some creative thinking, but he must not forget that he has a great responsibility to develop only sound and practical comprehensive marketing service programs.

As you go back to your respective States new opportunities will unfold before you each and every day. Choose the best ones, work untiringly and sincerely to help your farm commodity groups achieve better marketing of their products. Your reward will be in the satisfaction of seeing the agriculture in your State prosper and grow!

PROMOTIONAL FUNDAMENTALS

Walter J. Englund
California Department of Agriculture

Among the 34 industry groups operating under marketing order legislation during the past year in California, 24 conducted product promotion programs appropriating approximately \$6 million in all, to provide their marketing programs with market expansion and demand stimulating force.

The California Department of Agriculture has the responsibility of insuring that funds so appropriated are expended properly, but aside from this, its paramount interest is in helping these industries secure maximum effectiveness from their promotional dollars.

To this end it has provided, among other services, marketing investigations and surveys designed to orient various promotional programs toward logical objectives, and in its latest effort, has prepared and published a manual

entitled "Development and Administration of Agricultural Product Promotion Programs." Financed under the matching fund program, this publication was designed to provide our agricultural groups with fundamental knowledge of product promotional principles as an aid to their decision making. Major points are covered briefly in the paragraphs which follow.

The persistent growth pattern of promotional expenditures over the past 100 years is strong evidence to support the belief that advertising and other forms of promotion pays. Regardless of the skeptic's contrary view, it cannot be denied that promotion has become an almost indispensable tool to large scale production and distribution in our competitive economy.

For a clearer understanding of what promotion is all about, advertising, publicizing, merchandising, and public or trade relations work can be regarded as promotional tools, each having separate and distinct uses, and which may be used alone or in combination with one another, depending upon the nature of program objectives to be overcome or exploited.

The difference between "product promotion" and "brand promotion" needs to be distinguished. Product promotion aims to enlarge the total market for a product, whereas brand promotion primarily is aimed at increasing only the brand's share of the total market.

The purpose of promotion is far more exacting than many are prone to think. Overly-generalized statements are misleading. They may result in the adoption of product promotion when product improvement or quality improvement efforts would be more effective. Basically the purpose is to bring about a profitable increase in the quantity of a given product or service that will be purchased at a given price by means of persuasive effort aimed directly or indirectly at ultimate buyers.

Promotion is not a marketing activity to be used alone; it must be coordinated with other activities. Adequate distribution is necessary if the product is to be conveniently available, and the product and package must be right if the product is to be bought.

No product promotion should ever be undertaken until the opportunity is appraised. Whether or not there is need or opportunity to promote should be determined before any consideration is given such questions as how to promote, when to promote, where to promote, and how much to promote. Also, the appraisal should include the determination of whether the organizational body and product are sufficiently qualified to perform. Organizational weaknesses and product defects can do more to defeat a promotional program than the planning and execution steps themselves. Other factors requiring appraisal are the extent of brand promotion for the product, demand characteristics, price, packaging, and distribution.

Failure to establish sound, clear objectives for a program is a common fault. It arises from the misconception that the object of any program should be or is to increase sales or prices. This is a statement of purpose, not of objective. No military campaign was ever won having only as its objective, "to win the contest." Campaigns, be they military or promotion, are won by

concentrating on specific targets, completing them one by one until all are done. Objectives for promotional programs are specific marketing problems to be overcome or specific marketing opportunities to be exploited.

Objectives, their necessity or promise, should determine the scope and strategy of program efforts, not the availability of funds. Funds should be regarded as a limiting, not a determining factor. Were funds to govern program planning and strategy, objectives which would be "nice to do," are apt to be selected instead of those which "should or must be done." In most cases, it is better not to spend money on promotion than to spend it willy-nilly.

Promotional as well as marketing knowledge is essential in program planning. To attempt the development of a program without a practical working knowledge of promotional technology, psychology, and the creative arts, is to be penny-wise and pound foolish. Method selection, media selection, appeal selection, all require the knowledge and skills of promotional specialists. A great deal more than "bright ideas" are needed in the task.

Planning is not completed until there is a written plan. The "complete" plan contains five sections: (1) The statement of marketing facts, (2) an identification of marketing problems and opportunities, (3) a list of objectives, (4) a plan of action, and (5) a brief summary. A statement of facts is the foundation. From the facts comes knowledge of the problems and opportunities, the solving and exploiting of which are the program objectives. The plan of action discloses how the objectives shall be accomplished, and the summary provides perspective.

In agency selection, qualifications to perform the kind of job to be done not the ability of an agency to sell a plan should govern. How can an agency devise the right plan without knowledge of the product, the market, and the proper objectives?

Favorable agency-client working relations is a joint responsibility of the principal and agency. This is a give-and-take relationship. No matter how well conceived a program may be, incompatibility between principal and agency can spell program failure.

Evaluating the results of a promotional program is like evaluating a baseball pitcher's performance. It is not the score of the game, nor the motions of the pitcher, but the earned run average that counts. The scoreboard registers the influence of all the other players and their abilities. The pitcher's motions are superfluous. It's what happens up front that counts. Was his objective in preventing the batter from reaching base accomplished? This is the most that he alone can do. So it is with promotion. Numerous influences affect the sales and price chart, not just promotion alone. Nor is the apparent action of the program significant. What is important is that this action accomplishes the intended objectives. Did it stimulate retailer merchandising support? Did he provide bigger and better display space? Were the publicity releases used by the media? The answers are the earned run average of a promotional program. If these objectives were accomplished the promotion has done its job, and the evidence is strong, that if these objectives are accomplished, the ultimate result will be positive.

HOW TO GET THE MOST FROM YOUR PROMOTION DOLLAR

Lew Ray, Colorado Department of Agriculture

Before we think about getting the most from our promotion dollar, perhaps we should think about the whole marketing and promotional picture.

There are those who say that our promotional funds are wasted; that people's stomachs are only so big, and that if they eat more beef they will eat less pork; and if they eat more fruits and vegetables, they will eat less turkey. So, on and on we go; some say promote, some say don't promote.

I think we have to promote our agricultural products, for we must compete for the dollars that are going for new autos, refrigerators, boats, and gadgets, to say nothing of cigarettes, soda pop, and whiskey.

But why should we want to promote agriculture to gain a decent wage for the farmer? He represents only 12 percent of our population, and there are only 8 million people employed on farms. That's very true, but 37 percent of all employed persons in the United States are connected with agriculture. There are 6 million people in the United States servicing and supplying farmers, and still another 10 million processing and marketing farm products.

Farmers produce 65 percent of the raw materials for industry. However, last year they only got 4 percent of the national income, and this was not all farm income, for many farmers were forced to get industry jobs to supplement their farm income. So it is very important to our economy that our producers' lot be a little more equitable.

Farm Production and Who Has Benefited

In the last 15 or 16 years, our per acre yield has increased by 40 percent. In the same time, the farmer's share of the food dollar has shrunk to less than 40 cents. Sixty percent goes to handlers, packers, and distributors. While the farmer had to increase production in order to stay in business at all, the benefits have largely gone to the consumer. If farm prices had advanced at the same rate as other living costs in the last 7 years, our food and clothing would have cost us 25 percent more, or around 70 billion dollars.

Compared with 1940, one hour's labor today will buy 38 percent more bread, 11 percent more steak, 53 percent more butter, 75 percent more eggs, 300 percent more turkey, and over 400 percent more frying chicken. When you look at these figures, it's easy to see that the farmer has been subsidizing the consumer to the tune of about 10 billion dollars a year.

Our Market For Agricultural Products

Before we put on a promotion program, there are two very important factors to determine. With whom are we promoting and for whom are we promoting?

As you all know, our buyers are getting fewer and larger each year. In Colorado we have essentially 6 retail merchandisers--5 chains and the central

buyer for the independents. As our customers decrease, their sales resistance increases. So it is a must that we coordinate our marketing program. We must organize through marketing orders, marketing agreements, co-ops, or marketing associations to meet this resistance. If we are to survive, we must control our product.

We must grow, harvest, and pack the kind of product the consumer wants, and we must be in a position to deliver it when and where it is needed. We believe we must tailor our promotions to the retail merchandiser. He is our customer and we must cater to him. The large retailer doesn't care what price you charge for your product as long as it is what the consumer wants and as long as he gets it as cheap as his competitor.

We have been working with our turkey industry in their promotions for the past 5 years, and we have completed a promotional program recently with our potato people that may be of interest to you. We worked through the potato marketing order board of control. In other words, they furnished the money and we did the work.

First we had a queen contest among our potato growers. They nominated the contestants from the young ladies between 16 and 24 years in growers' families. This created a lot of interest among the growers and enabled them to see first-hand some of the work and publicity carried on in selecting a potato queen and runner-up. After the queen was selected, we used both the queen and runner-up in the promotions which were carried on by the stores. The promotion began when our early potato harvest was just getting started. Merchandisers were offered the services of the girls to appear in their stores on Thursday, Friday, and Saturday of each store's promotion. We coordinated the program, with each chain selecting its choice of weeks on a first-come, first-served basis. After the dates were set for the 6-week period during August and September, each group set up its advertising and promotion of northern Colorado potatoes on that particular weekend. We are strong advocates of getting the retailers to do our advertising for us. In fact, we have to with so few dollars for advertising.

Point-of-sale material was furnished the stores free by the potato board. Our marketing specialist was in charge of delivering the girls to the various stores, and he also helped with the mechanics of the promotion. The stores were very enthusiastic about our promotion, and we believe it helped materially in keeping our potatoes moving from the packing sheds in an orderly manner. This was the first year of the promotional effort, and this is the first year in a long time that there was not a drop in price during the early potato deal.

We have noticed a marked increase in special displays and advertising by the stores since their promotions, showing that the interest generated by the promotion is carrying on through the week-by-week sales of potatoes.

Turkey Promotion

When we began helping the Colorado Turkey Federation with promotion, they were checking off one cent per poult for the Eat More Turkey Fund. They were paying their quota to the National Federation, but doing very little in promotion at home. The stores sold turkeys at Thanksgiving and Christmas, many times at or below cost, and I think really hated to sell turkeys.

The first coordinated promotion of turkeys was initiated by the department in July 1956. A survey by the poultry and egg section staff indicated retailers were interested in using point-of-sale materials. Poultry buyers and advertising managers of the large chainstores were contacted regarding "Midsummer Turkey Time," nationwide campaign to boost sales of turkey. The USDA Food Distribution Branch in Oklahoma City furnished film strips and spot announcements for radio and television, as well as leaflets and fact sheets for markets. The Colorado Federation agreed to pay for streamers from the National Turkey Federation to be distributed to stores. The point-of-sale materials were distributed by department employees.

This trial promotion of turkey was so successful that the Federation decided to make special sales efforts during the remainder of the year. Four members of the Federation, with a member of the department of agriculture staff as chairman, composed the Promotions Committee appointed to coordinate further sales campaigns.

Key merchandising managers in Denver and over the State were invited to a thank-you dinner at which Turkey Federation officers were hosts. This dinner has become an annual affair, held earlier in the year in order to plan advertising and promotions for each year. Early programs concentrated on explaining problems of producers, such as costs of producing and processing. From year to year, the invitation list was expanded to include members of the press, food page editors, radio and television people, and turkey processors. Cooperation of all segments of the turkey industry and its allied industries has resulted to a large extent from this combination of socialization and business cooperation. For the last 3 years we have had 5 advertising campaigns each year--Easter, Midsummer Turkey Time, Colorado Turkey Week, Thanksgiving, and Christmas. Most retail groups cooperate on each promotion. Cooperation with the five promotions comes from many sources. One of the most effective is newspaper food page editorials, with illustrations in color. Trade journals sometimes carry suggestions for holiday meals. Television programs include the national "Romper-room" program with which our producers cooperate yearly, special agricultural programs by television commentators emphasizing the current promotion, and, of course, much newspaper advertising directed toward the consumer is done by retail and wholesale merchandisers over the State.

Merchandisers are also very happy to cooperate in displaying point-of-sale materials. Individual restaurants schedule turkey on their menus and display any material we can supply. Our agricultural college extension service has been a partner in our turkey promotion and assisted in getting materials out to home demonstration agents, 4-H clubs, home economics teachers, and other groups. Their work has been very helpful in putting over the turkey story.

One year we furnished turkey sandwiches to all newspaper and radio personnel in the press box at all home football games of Colorado State University. This went over quite well with the reporters and gave turkey a lot of publicity at a very small cost.

We have tried some new advertising this year, the use of highway billboards. We purchased eight during the month of September, to coincide with our Colorado Turkey Week promotion the last week in September and the first week in October. Of course, we have no way of knowing how much good the billboard advertising did, but we decided to use it because we had not used this medium before.

We have not exceeded \$3,500 in total promotion cost during any year. We have distributed over a half million pieces of point-of-sale material, and we know it is being used. A complete report of promotions is made at the annual State Federation meeting.

We are very pleased with the results of our promotional efforts:

1. Our turkey growers cooperate heartily on the 1 cent per poult check-off.
2. Our merchandisers seem anxious to cooperate on our 5 promotions and use our advertising material.
3. There is a closer relationship between the producer and merchandiser.
4. It has practically eliminated fire-sale prices on turkey over the entire State. Our merchandisers are making money on turkeys.
5. During the last 4 years, turkey sales in individual stores have increased from 35 to 3,040 percent, with an average increase of more than 100 percent.
6. Working with the merchandisers in delivering point-of-sale material has increased the effectiveness of our poultry and egg inspectors. They are doing a better job and are better received by the stores. They are now part of the team.
7. Almost all supermarkets and superettes now display turkey the year-round.
8. Last, and the proof of the pudding, is that Colorado's per capita turkey consumption is a little over 9 pounds, while the national average is 6½ pounds.

HOW TO DEVELOP THE BACKGROUND INFORMATION NEEDED IN PLANNING AND CONDUCTING PROMOTIONAL PROGRAMS

G. E. Zich, New Jersey Department of Agriculture

A suggested list of potential sources of standard background information for developing promotional programs for farm products was distributed. The sources included information about food products; lists for disseminating news releases; media and advertising costs; and lists and information about retail stores. The particular promoter is left to his own devices, if these standard sources do not serve his purposes, to find better, more applicable and geographically appropriate information.

For special background information, the promotion planner must employ fact-finding studies. These may include (1) relatively large unselected statistical samples for consumer preference determination, or (2) the newer motivational research methods using interviews in depth techniques of clinical psychology, and techniques of psycho analysis. (See AMS Research Report No. 416 for more.)

For proofs of nutritional merit of a product, e.g., as needed to combat the indictment "potatoes are fattening," and (3) new tests may be undertaken, preferably with human subjects under supervision of impartial, recognized food authority, to provide special background information. 1/

A formula for developing one promotion may not be applicable to another: However, basic steps are the same:

- a. Quality control (preceded by quality improvement work if necessary).
- b. Identification so customers may recognize product at retail.
- c. Distribution to be sure product is available where promoted.
- d. The actual promotion--advertising, public relations, merchandising, or combinations thereof.

General questions to answer at the outset include:

- a. What do we want to achieve with this promotion? Sell more product to same consumers? Open new markets?
- b. Plus points and minus points for our product--likes and dislikes of distributors and consumers for our product? Is there a public relations problem?
- c. Do we want to sell product "as is" or can we enhance its marketability by branding, new packaging, some new treatment or ingredient?
- d. What media are best for this product with its special problems?
- e. Should we advertise or otherwise promote?

Answering (e) is one of the great advertisements of all time. For its full effect, the ad must be read while looking at the illustration of a buyer--whose facial expression is probably the coldest, unfriendliest, most forbidding ever to stare out of the printed page. For a copy, write to McGraw-Hill Publishing Co., Inc., 330 West 42nd Street, New York City. The buyer is saying:

"I don't know who you are.
I don't know your company.
I don't know your company's product.
I don't know what your company stands for.
I don't know your company's customers.
I don't know your company's record.
I don't know your company's reputation.
Now--what was it you wanted to sell me?"

- f. Finally (or first?) WHAT'S THE BUDGET?

RECENT DEVELOPMENTS IN PACKAGES AND PACKAGING

John L. Ginn, AMS, U. S. Department of Agriculture

Today in this fast changing world in which we live, I believe we must take a 10-minute break every so often to reflect on just where we stand. One of

1/ New Jersey used (1) on eggs, poultry, turkeys; (2) on asparagus; and (3) on white potatoes.

the most enlightening 10 minutes that I can think of in reviewing our progress in the field of packaging is to take a stroll through almost any large food store and compare the produce department today with that of 10 years ago. We not only realize that tremendous advances have been made in packaging, but if we watch the consumers make their purchases, we also realize that they are selecting their produce with more confidence than they did a decade ago. More and more consumers today are associating packaged produce with quality, protection, and cleanliness. If growers and shippers will take even more care to package only high quality products, this confidence of the consumers will continue to grow.

For some of the more recent developments in packages and packaging, let us consider the following commodities:

Cauliflower.--Ten years ago California cauliflower was shipped in bulk in wood crates. Now, approximately 60 percent of cauliflower is trimmed and overwrapped with cellophane sheets. Some shippers in the Watsonville-Salinas areas are prepackaging up to 95 percent of their total volume. We found that the average weight of a partially trimmed head of cauliflower in the bulk pack was about 3 pounds. After cauliflower had been fully trimmed for prepackaging it weighed approximately 1.6 pounds, or a 46 percent reduction in weight. The savings in freight charges were more than the cost of extra labor and materials for packaging. The average direct cost of packing, loading, and shipping 100 pounds of cellophane overwrapped edible cauliflower from California to New York was \$7.62 compared to \$8.82 for untrimmed bulk cauliflower. Trade reaction was more favorable to prepackaged cauliflower than to any of the bulk packs.

Lettuce.--In recent tests members of our packaging research staff in California trimmed lettuce wrapper leaves and prepackaged the heads in moisture-proof film. This trimming of wrapper leaves, which are not eaten, reduced the shipping weight 14 to 17 pounds per carton of 2 dozen heads, or almost 10,000 pounds per carload. With the freight rate \$2.60 per 100 pounds from California to New York City, the very substantial saving in transportation costs is obvious.

Potatoes.--More and more potatoes, like many other commodities, are now being prepackaged at shipping point. Recently, I heard it said that within a very short time all the potatoes leaving Idaho will be in processed form or in some type of consumer package. Although late crop potatoes are being packaged extensively, the more perishable potatoes in the early crops still face a problem. Last spring we conducted an experiment in cooperation with a large shipper in southern Alabama to hydrocool and prepackage early potatoes. Potatoes were hydrocooled to about 50 degrees and nearly 500 cars were shipped without a single rejection or a single complaint. We experimented with polyethylene netting, and with 5- and 10-pound poly bags as well as paper bags with mesh windows. We have learned from previous experience that decay develops faster, of course, in the poly bags than in packages with more ventilation. We expect to continue these experiments this winter with potatoes from 200 acres in Florida.

Asparagus.--There is a lot of interest in packaging asparagus; we have received many inquiries from growers in most of the producing areas. Last year, at the request of a major grocery chain and a group of growers, we experimented

with prepackaging asparagus in California, in sheet film and in open and closed polyethylene bags. Our experiments were not too successful. We were hoping to find a way to reduce transportation costs by disposing of the inedible white butts of the stalks. About 35 percent of the stalks are inedible, and we are spending a great deal of money to ship a lot of useless vegetable matter which will be thrown into a garbage can. We also experimented with packaging No. 2 grade asparagus by cutting the spears into 2- or 3-inch lengths and jumble packing them in 1-pound poly bags.

Green beans.--This year we were fairly successful in shipping green beans from Florida to the eastern areas in 350- and 450-guage polymer-coated cellophane bags. These beans were packaged 18 ounces per bag, heat-sealed mechanically, packed in wirebound master containers and vacuum-cooled to about 40° F. in 30 minutes. The bags were ventilated with about 20 holes $\frac{1}{4}$ -inch in diameter. The terminal and retail arrival condition of the beans was excellent. In all shipments, the beans were dry, there was no condensation in the bags, and they displayed very well in the retail stores lying flat.

Sweet corn.--We are now making progress in packaging sweet corn. This year we made 10 experimental paired or controlled test shipments from Florida to New England and eastern areas. We used molded pulpboard trays and chipboard trays. Films used for overwrapping the trays were polymer-coated cellophane and irradiated shrinkable polyethylene.

Our findings show that the best arrival conditions of packaged sweet corn resulted from using the following packaging materials and methods of processing.

Use quality selected corn, cut it to 8-inch lengths, remove about 25 percent of the husks, strip a $\frac{1}{4}$ - to $\frac{1}{2}$ -inch wide strip of the remaining husks to show consumers the condition and quality of the corn, wash or wet it by sprinkling, pack 5 ears per tray, overwrap it with shrinkable film, pack it in either a wirebound or fiberboard master container, and vacuum cool it to 38 to 40 degrees. Ship it under standard refrigeration and control the temperature all the way to the consumer.

We still have a long way to go before corn can be packaged economically at production level on a commercial scale. We must solve denting and discoloration problems and moisture losses. Then, there's the problem of developing machinery for handling large quantities of packaged corn mechanically.

Citrus and subtropical fruits.--We experimented last year with prepackaging large sizes of Navel oranges, Temple oranges, and tangerines in trays sleeve-wrapped with shrinkable film. This made a beautiful package and certainly there is every indication that considerably more citrus will be prepackaged in the future.

I think we should consider prepackaging other items, such as avocados, to promote the sale of 2 or 3 avocados at one time. Perhaps they could be shipped in less expensive shipping containers. This would offset the additional cost of consumer packaging them. Avocados, as now shipped in bulk, are generally delivered to the retailers in excellent condition, but constant consumer handling causes them to deteriorate in appearance and in condition.

Apples and pears.--We made a real breakthrough in prepackaging apples and pears in Oregon and Washington State last winter. They all come into eastern markets in perfect condition--many in full carload lots.

Last December, in cooperation with the Washington State apple industry and package manufacturers, we set up an experiment on the west coast to pre-package apples in molded pulpboard trays sleeve-wrapped with biaxially oriented polyethylene film. The apples were packed either 6 or 8 to a tray. The shrinkable film was wrapped around the tray and sealed on the bottom, with the ends left open. The tray was then moved into a 300° F. heat tunnel for 3 seconds, which shrank the film tightly around the apples. The film was wide enough to hold the ends of the apples in place in the trays, but left a small opening at each end of the tray for ventilation. We used 12-inch film for the 6-apple unit and 14-inch film for the 8-apple unit. The 6-apple unit was packed 15 trays (5 to a layer) in a master container--a full telescope fiberboard box. The 8-unit packages were packed 16 trays to a master container--4 trays per layer, 4 layers per box. New and improved molded pulpboard trays were also developed and evaluated.

The chief advantage of the shrinkable film is that it immobilizes the apples. This reduces bruising damage. The film also provides excellent visibility. An estimated 25 carloads of apples were shipped during the winter months from the northwest to the eastern markets in this type of package. Consumer acceptance of these packages was generally excellent because of their sturdiness, eye appeal, and good visibility.

Peaches.--There are definite trends in the southeastern peach industry toward some prepackaging. You simply cannot ship a firm ripe or ripe peach in the conventional bulk containers. Generally speaking, the more protection you give a peach, the more it's going to cost you. However, tests have shown that consumers prefer riper peaches and are willing to pay premium prices for them. Last year we made 10 test shipments from the Carolinas to New York evaluating bulk containers. We found that the peaches which arrived in the best condition at terminal level were those in plastic trays packed in fiberboard boxes. In this pack each peach nests in an individual compartment. The gross weight was about 24 pounds.

We also made several preliminary shipments of prepackaged peaches using a 2-quart pulpboard till basket. This till was sleeve-wrapped with polyethylene netting or with shrinkable polyethylene film. Because of our initial success with this till basket we plan to further evaluate it on a larger scale next season.

Grapes.--Grape packaging is still controversial. The California grape industry is reluctant to package sizable quantities. However, fresh table grapes can be prepackaged successfully in California for shipment to eastern markets. Shippers who are packaging grapes are receiving premium prices for them. We recently completed studies made over a 4-year period, 1956-60, evaluating grapes prepackaged in 8 different types of consumer packages. Four consumer packages were eliminated because of unfavorable characteristics; however, 4 had considerable merit. Two of these, a folding tray overwrapped with film, and an acetate window carton with stapled recessed bottom, met with the most favorable acceptance.

In 1959, one corporate grocery chain reported buying 58 carloads of grapes prepackaged in California--about 90 percent packaged in acetate film window cartons with stapled recessed bottoms. The price of this package was reduced in 1960. This, coupled with the use of a cheaper master container and increased efficiency of the packaging operation permitted a cost differential of only 40 cents as compared with the standard bulk pack. Also, in 1960 a plastic basket in which the grapes were prepackaged after first being overwrapped with film was well accepted by receivers.

New packages.--The new shrink films are having a great impact on the fresh fruit and vegetable packaging industry. The extremely favorable initial success with prepackaged fruits in trays overwrapped with shrinkable polyethylene has fairly well demonstrated the possibilities which lie ahead. In addition to the polyethylene film, shrinkable polyvinyl chloride film, shrinkable polypropylene film, and shrinkable polystyrene film have recently become available. These shrinkable films must be further tested before their relative merits for pre-packaging produce can be determined. Prepackagers should be able to use less expensive trays because of the great strength provided by these films.

Cheaper and more serviceable plastic trays probably will be introduced in the future. New cushioning materials, such as polystyrene foam, are now being developed and evaluated. In the meantime the conventional paperboard trays, cellophane, window boxes, and the polyethylene bags will probably carry on as the chief packaging materials for the produce packaging industry.

ADVANTAGES AND LIMITATIONS FROM SHIPPER AND BUYER VIEWPOINT OF NEW PACKAGES BEING TRIED IN ILLINOIS

Ruel R. Hindman, Illinois Department of Agriculture

The trends in produce packaging present a wide range of problems in the modern marketing field, so I shall limit my discussion to new packages being used in packing Illinois peaches. During the last few years, the volume buyers of Illinois peaches have been very definite in their demands for the delivery of more mature peaches to their warehouses. Since producers have made very little change in their peach packing methods for about 30 years, and the standard bushel pack has been used almost exclusively, some radical changes were in order if mature peaches were to be marketed. So it was decided to set up a pilot project to determine what could be done about this problem of marketing mature peaches. This project was launched in 1959 and continued during the 1960 season.

We were fortunate in having a grower who was in the process of building a new packing shed and acquiring new equipment for his packing operation. He also had been looking into the future and had planted several desirable varieties of peaches which were now bearing. Since his peach operation had not been too profitable for the past several years, he was interested in new packing and marketing methods which might raise his orchard income.

I might mention that his new shed was 112' by 80' with a concrete floor, housing the conventional peach brush, weight-type sizer, packing tables of the return flow type, and hydrocooler. A cooling room also provided 400-bushel

capacity, and a retail sales and display room 30' by 20' was attached to the main pack shed.

The intention was to pack and cool two-layer "pani-pack" cartons, which were made of moisture resistant fiberboard. The sizes packed were from 40 to 70 count. The first problem was found to be with the packages as they would not stand up under the hydrocooling process, so the cooling had to be bypassed. Since no other suitable packages were available locally, the grower had to continue with the fiberboard container and load them dry into refrigerated trucks. These packages of peaches sold readily and at prices well above comparative bushel prices; but without shipping point cooling, many arrived overripe and adjustments had to be made with purchasers.

The results of the 1959 project pointed up several facts that must be met to make a program of specialized peach packaging successful.

First, a grower must plan ahead with a complete program of planting, pruning, thinning, and fertilizing, as well as an extended harvest season in order to produce the quality fruit required for this type of marketing.

Second, the package must be easily packed; it must stand hydrocooling; it must be rigid enough to load and hold up on long hauls; it must be acceptable to the trade, and it must be comparative in cost to standard packages now in common use. Above all else, it must carry mature peaches to the retailer without bruising or damage of any kind.

With these factors in mind the package chosen by the grower for the 1960 market season was a wooden, nailed, one layer, divided flat 28½" long, 16½" wide by 3½" deep, which held two standard, perforated "pani-pack" plastic fillers, with a cardboard protector under the slat cover of the package. The cost of this package with fillers and paper was 50 cents each. This package cost seems high since the package holds only 20 pounds of peaches, but the final results easily overcome this extra package cost.

A local mill produced this package in quantities desired by the grower from materials having the necessary strength and of very attractive appearance. The package was labeled at the factory with the growers name and the legend "Tree-ripened peaches."

From the shipper's standpoint this package met his needs fairly adequately. Of course, his volume of packing was reduced as more hand work was required to pack this type of package than the standard bushel. This factor limits the use of a package of this type more or less to the grower with limited acreage of several varieties, and makes it almost impossible for the average Illinois grower who has large acreage of one variety, such as Elberta, to adopt a packing program of this type. The grower must also follow a rigid production program in order to produce peaches of high quality, color, and of rather large sizes. It was found that peaches of smaller than 60 size to the 20-pound pack would not sell at the premium price required to make this type packing profitable to the grower.

Before an order was given for the manufacture of this package, it was necessary to take a sample package to all nearby terminal markets and get the

opinions of commission men and chainstore buyers as to their ideas of the package and its practical use in carrying peaches to the retailer. Most buyers liked it and said they would buy peaches packed in it. This sample package was also exhibited, packed with Illinois peaches, at the National Peach Council Trade Conference held at Chicago, Illinois, and attended by 175 wholesale buyers, growers, and press representatives. It was well accepted by this group, and was especially interesting to the buyers and marketing specialists from other States.

Now for the actual results of the 1960 harvest season using the new package. The harvest season started about July 15 with the Cardinal variety followed by Red Haven, Hale Haven, Hale Harrison Brilliant, Elberta, and finished with Rio-Oso-Gem about September 10. All these varieties packed and sold well in this package except Elberta which lacked the necessary color, flash, and size demanded by the trade for a specialized pack of this kind.

Over 18,000 packages of this type were packed by the grower and marketed by his sales agents in markets throughout the Midwest area. Of this amount about 50 percent was hydrocooled at the shed. On short hauls to nearby markets, only truck refrigeration was used to cool the fruit in transit. Some of the hydrocooled loads were hauled as far as 1,000 miles and arrived in excellent condition. These peaches were closely observed all along the line, at the pack shed, the loading dock, and at the retail outlets. Everyone concerned with the marketing of this fruit seemed to be well pleased with the operation and its results.

The price received by the grower for this 20-pound package was very near the price received for packed bushels marketed by the same sales agent for other growers. The grower was well pleased with the prices he received for his crop and plans to continue this marketing program, using this type package.

The only serious criticism to this package came from the retailer. He felt that the package took up too much display space in his store, and since this space is really what he has to sell, he had a reasonable gripe. This problem was solved by lifting the plastic fillers holding the fruit out of the package, fillers could then be stacked, without damage to the fruit, in a relatively small space, and the master container could then be discarded.

This project brings out several facts: Illinois peaches can be marketed in a mature condition, and will sell readily to the trade demanding high quality fruit, at prices well above the general market for regular packs. However, before any new package can be recommended to the trade for peaches or any other commodity, a great deal of work must precede the actual marketing of the product. I do not believe that the package we have described here is the answer to our problem but it may attract some growers who are willing to concentrate their efforts for a specialized pack. We hope to continue our work on package research and come up with a package more suitable to the general trade for marketing mature peaches in Illinois.

THE NEED FOR MORE UNIFORM PACK, PACKAGING AND LABELING
REGULATIONS AMONG STATES

W. C. Woodrow
Kentucky Department of Agriculture

From the time when man began to engage in trade and commerce he has been beset by problems of grading, packaging, standardization, and product description. In this country we have endeavored to accomplish these ends through:

1. The Pure Food, Drug and Cosmetic Act including the McNary-Mapes amendment.
2. Federal grade standards (USDA).
3. State standards and regulations.
4. Perishable Agricultural Commodities Act.
5. Trade association regulations.

These are the legal mandates by which society, through government and private action, attempts to protect itself from unscrupulous trademen and trade practices.

From time to time these mandates have required the sanctions of the courts to uphold their validity. In general, the courts have looked upon this area as one in which society has a vital concern.

Obviously, different agricultural commodities require different types of containers. For a commodity, there may be differences of opinions as to the type best adapted to the protection of the public and, if so, whether the type specified should be made mandatory are issues of fact and of policy, the determination of which rests in the State legislature or in the administration agency to which may have been delegated the scale making function.

What are the objectives of uniform (compulsory) packing and labeling regulations? As I see them they are concerned with:

1. Developing and standardizing both the label and package requirements in the interest of improving distribution, trade promotion, and product utilization.
2. Insuring correct product description in the interest of promoting commercial trade and product utilization in both domestic and foreign trade.
3. Aiding buyers, either wholesale, retail, or consumers, in decision making when two or more grades or packages of the same product are offered.

Characteristics of uniform labeling and packaging regulations:

1. Labels should identify the product by name, point of origin, content, presence of additives, mixtures, foreign materials, type of pack, size, grade, age, weight, and so forth.
2. Labels should be designed to protect buyers from misleading and false claims, help the consumer to distinguish between two or more grades and packs, and indicate the standards of quality.

3. Containers should be of a type that manufacturers can readily supply. They should be economically feasible and should be of such shape and dimension as to fit into, and improve the efficiency of, the distribution system.
4. Due to the widely scattered nature of the producing areas of the United States it does not make it seem likely that one specific container could be adopted for any given product. But some reduction in the number of types and sizes of containers would be possible.

What are the advantages of uniform packaging and labeling?

1. Promote better communications, trading, and comparison.
2. Assist in price discovery at various levels.
3. Promote more uniform pricing.
4. Assist in price reporting.
5. Promote nonprice competition.
6. Promote brand substitution.
7. Expand the area of future trading (hardware items).
8. Increase the elements of perfect competition.
9. Extend preseason contracting.
10. Reduce container cost and promote more economic handling.

What are the disadvantages of a uniform packaging and labeling law?

1. Business firms in general endorse laissez-faire policy.
2. Control, administration, and policing may be costly.
3. Individual packers may have packages and labels which are superior to those which might be developed through regulation.
4. Leads to technical problems in quality control.
5. Both packages and labels must comply with the trade needs. Trade needs, however, change from time to time while regulations are not easy to adjust.

Some economic consequences of compulsory, uniform packaging and labeling regulations.

1. Producers of agricultural products may in some commercial production areas find it relatively easy to comply with packaging and labeling laws because these regulations have partially been built into their marketing system.
 - a. Strictly enforced packaging and labeling laws could reduce quantities of perishable products offered in the marketplaces. Because of the inelastic nature of demand for all agricultural products, this would tend to increase the total return to agricultural producers.
 - b. Firms with established brands such as "Sunkist" or States with marketing programs such as "Wisconsin Cheese," that have already captured distinct portions of the market may not favor uniform packaging and labeling acts. This is due to the fact that their products are felt to be superior to those in competing areas. Therefore, they may oppose a uniform package and labeling law on the grounds that it might raise the quality of competing products and destroy their own economic advantage.

- (1) In some cases uniform labels might tend to destroy a semi-monopolyistic position enjoyed by certain firms and establish elements of a perfectly competitive market, i.e., relatively free entry into the market, (1) where product identification is not strong, (2) where price is fairly uniform throughout the marketplace, and (3) where no one firm is sufficiently large to influence price. Furthermore, well-established packages and brand labels do exercise considerable influence upon price discovery in the marketplace. In many instances they are the basis for the expression of consumer preference which no firm would willingly give up.
- (2) Firms not enjoying a high quality product might oppose a label, first, for fear of exposing the inferior quality of their product, and second, for fear it might increase the cost of doing business and destroy their economic advantage in catering to a particular income market. Conversely, however, they may support a uniform label on the assumption that the new standards would help them encroach upon markets already closed to them on the basis of quality.
- c. Product identification is enhanced through information printed on the label. Thus, consumers are aided in making a choice between various grades, competing brands, and in price determination. The end result should be lower purchasing cost. This type of information, however, leads to a paradoxical situation. On the one hand it eliminates certain buyers from purchasing a product from a given area. On the other hand it may promote certain products from specified areas.
- d. Labels should promote communication between buyers and sellers through speeding up and reducing the cost of marketing by virtue of better understanding as to the specific characteristic of the product concerned.
- e. Uniform labeling should tend to promote mass selling, mass confidence, more effective marketing, and induce greater competition especially in the nonprice area of market competition.
- f. A uniform grade law should promote continuous customer confidence. For example, consumer studies have indicated that one bad egg in a carton will discourage the purchaser to the extent that she will reduce her total egg purchases in the next few days by three dozen eggs.
- g. Under all circumstances labels should be easily read, easily understood, and the terminology should be plain enough to promote better communication between the buyer and seller.
- h. Uniformity in packaging can do much to standardize packaging costs. One major argument against a uniform grade law lies in the fact that perishable items from the various production areas do not

fit into a uniform mold throughout the Nation, hence, different standards will be needed by distinct production areas. Marketing agreements, by commodities, all carry some uniform grading and product identification labeling requirements. These areas will, however, endeavor to promote product identification, and its unique characteristics which they do not wish to share with competing areas.

Conclusion: In conclusion it would seem that the need for uniform State labeling laws does not warrant a special set of standards, but rather, there is a need for strict compliance with the U.S. standards, and to use the U.S. standards as a minimum base for private labels.

OPPORTUNITIES FOR MARKETING SERVICE WORK WITH WHOLESALE AND RETAILERS

R. W. Hoecker
AMS, U. S. Department of Agriculture

It's a long way from the farmer to consumer--not just in distance, but also in people and services. Last year it cost Americans about \$38 billion to bring food from the farm to the dinner table.

This is why Congress directed the U. S. Department of Agriculture to promote, "...a scientific approach to the problems of marketing, transportation, and distribution of agricultural products."

But, is this work benefiting the farmer? It is easy to see how the farmer is being helped by projects near him on the marketing chain. Few doubt that the grain grower receives more for his product if the elevator he sells to can store it more efficiently. Likewise, producers naturally benefit from marketing research which cuts shipping costs. But, as the fruit of the farmer's labor moves nearer to the consumer, the dollar savings become harder to trace back to the farm.

So, let's particularly try to see how the farmer benefits from USDA marketing research at the farthest end of the marketing chain--the wholesale and retail level.

Unit marketing costs have gone up over the past few years. To be exact, they are up 35 percent from 10 years ago. What has happened to the cost of wholesalers and retailers over this same period of time? Remember, they are dependent on other groups besides farmers.

Like most businesses the wholesalers and retailers must pay employees, buy equipment, pay taxes, pay rent, and other expenses. Profits amount to only 1 to 2 percent of the consumer's dollar and they have not risen in the past 10 years.

The cost of grocery bags is up over 60 percent. Labor costs have risen about 70 percent, equipment costs are up 65 percent. These are just a few examples of increased costs. There are many more.

If marketing charges had risen in line with these costs, today we would be paying much more for food and fiber. And most important, higher retail food prices would have meant a smaller consumption of farm products and lower farm prices.

But, why didn't food prices rise in line with costs? There are three reasons why the food distribution industry has been able to absorb so large a share of rising marketing costs:

1. More work is now done per employee than ever before.
2. Those in the industry have learned how to better use materials, equipment, and facilities to increase productivity.
3. The industry has increased product quality and cut waste.

Much of this has resulted from application of findings of USDA marketing research. Here are some specific examples of how research has made it possible to hold the marketing bill in check.

In Delaware, a State marketing official reported 15 chainstores and independent firms sold 10 to 45 percent more produce--all as a result of USDA marketing research. And store operating costs were cut sharply.

A major retail food chain operator stated: "Produce used to be our most profitable department but it gradually slipped until it became an expense to the other departments, carried as a customer convenience. If we had not had the USDA research program we would have had to cut back this department and raise our prices. We probably would have cut the number of items we carry, especially quality items, reduced local buying, and given up some space to nonfoods."

A New Hampshire independent retail firm reported that as the result of following the USDA research program produce sales were up 4.8 percent; spoilage down 1.6 percent of sales; labor cost down 3.2 percent of produce sales; sales per man-hour up \$4.53; supplies cost down 0.7 percent of produce sales; total savings for spoilage, labor, and supplies of 5.4 percent or over \$13,400 per year.

The president of a New York State local chain reported the effect of following the USDA research program in one of his stores as follows: "First and foremost our produce department has enjoyed a volume percentage increase twice that of the rest of the chain. Our total man-hours showed a decrease of 12.8 percent. The sales per man-hour increased \$4.98 or 28 percent and we are able to do a better physical job at the retail level."

Indicative of the effectiveness of the USDA research at the wholesale grocery level has been the reduction of wholesaler markups ranging from 10 to 12 percent in the 1947-49 period to 5.6 percent in 1959. Detailed records used to measure the effectiveness of following USDA research results showed that tons of merchandise handled per man-hour were increased 26 percent in 6 modern warehouses and 55 percent in 9 smaller and less modern warehouses. In one case, tons per man-hour were increased from 0.43 ton to 1.61 tons for an annual savings of \$80,000. An average for a large number of warehouses shows an increase in tons per man-hour from 1.25 in 1948 to 2.01 in 1958.

Excerpts from some of the many letters written into the Department testifying as to the effectiveness of the research follows: Operator in Albuquerque, N. M., "...these ideas have been put into practice and have lowered our grocery warehouse payroll by 35 percent." President of a Washington, D. C., wholesale firm, "All recommendations in your report have been studied and put to work. The results have been most gratifying....from the point of view of economy in time and labor." The president of a Illinois wholesale firm reported, "As you can see, we had a decrease in warehousing cost of 25 percent....efficiency such as we have experienced will continue to help the food industry decrease the difference between what the producer sells his product for and what the ultimate consumer pays for it."

The Wholesaling and Retailing Research Branch carries on an active program of translating research results into industry practices by conducting clinics, writing popularized articles, distributing research reports, and appearing on national trade association programs. One of our most effective methods of obtaining adoption is through a program of teaching the teachers. This is accomplished primarily by the use of clinics which industry personnel, State Department of Markets, and State Extension Service personnel attend. Usually these clinics are conducted with a trade association or State agency sponsoring them and the USDA furnishing the subject matter. They are organized in a manner that immediate followthrough is not only possible but highly desirable. The clinic becomes the vehicle for establishing close trade relations as well as a training device.

OPPORTUNITIES FOR MARKETING SERVICE WORK WITH WHOLESALERS AND RETAILERS

Richard C. Souther
Maine Department of Agriculture

The State of Maine is certainly no exception when one considers the need for improving the wholesaling and retailing of agricultural products. For years some of our retailers have handled produce in about the same manner as did their grandfathers in the so-called "good old days:" Dump displays on a dry rack, merchandise not trimmed, and no attention given to quality or customer preference. This "take-it-or-leave-it" attitude far too often results in large quantities of merchandise having to be disposed of as unfit for sale. Spoilage has been a major obstacle in the profitable operation of the produce department, and you know as well as I do that a retailer's chief interest is in profit. An unprofitable department is quite likely to become a neglected department, treated as a "necessary evil." Once this happens, there is only one way it can go, and that is down. Of course some of our chain organizations have realized the fallacy in this type of operation. They have instituted programs of their own in an attempt to improve the efficiency of their operations in the produce field. But there are many independent retailers and members of small voluntary organizations who do not have the benefits of supervision by a home office. This is the type of store in which we believe we can be of the most service.

It is true that in some cases these are what might be termed as very small stores. Total weekly sales may be as low as \$2,000 to \$2,500 and produce sales

as little as \$150, but when we are able to bring this figure up to about double the former amount and improve the quality of the merchandise offered, we feel our efforts have been well rewarded. However, most of the stores we have worked with have been in the \$8,000 to \$12,000 per week class, with produce sales averaging 6 to 7 percent at the start of our program.

How do you get started? Whom do you contact? Let me cite some examples, experiences, and maybe a few pitfalls that illustrate how we got started with our programs in Maine.

But first a little background. We had been doing a great deal of thinking about this type of program and how it could and would be beneficial, not only to the store owners, but even more so to the consumer in making available the best quality produce possible at the lowest prices consistent with good business practices.

Our introduction to the basic principles behind this program was at a joint produce clinic sponsored by the U. S. Department of Agriculture, the New York Department of Agriculture and Markets, and the New York State Extension Service.

This clinic fanned the spark and the decision was made. Later one of our marketing specialists attended the U.S.D.A. training clinic in retail operations research. Now we were in business, all set and raring to go, but we had no cooperator. Our first contact was with the top management of one of the large local corporate chains in our State. We briefly explained our program and what we hoped to accomplish. The company top management was very much interested and asked us to return with a more complete outline. At this second meeting, in all our enthusiasm, I guess we oversold the program. This, I am told, is a very common error committed by the uninitiated in the selling of intangibles or services. Anyway, we wound up without a cooperator. Don't oversell your program, because it can happen to you, too.

Our next step was to meet with the president of a company servicing a national voluntary chain in our area. He was impressed with the program, but was somewhat reticent in giving us the "go-ahead" signal until he had consulted with his produce merchandiser and the chief supervisor of stores. We were pleased with this decision, as we well realized that the complete cooperation of top-level management was necessary to insure the success of our program. At a later meeting with all the top-level personnel, our project was accepted. Several stores were selected by the produce merchandiser as typical produce-problem stores; and, after consulting with the store supervisors, one store was designated for our project. But this was only the start. Once in the selected store, it again was necessary to "sell" not only our program, but, more important, we had to "sell" ourselves. It is only natural for a store manager and for a produce manager to resent the appearance of some so-called expert whom they expect will criticize, change, and, to their way of thinking, thoroughly disrupt the whole produce department operation. Such thoughts must be "sold" from their minds. Experience has taught us that it is far better to take off our coats and work with the produce manager. Get him interested in the project. Give him a part in the planning. Respect his thoughts and ideas, and be sure to give credit where credit is due.

When we arrived in our project store, we found the owner-manager most cooperative. We made scale drawings of existing facilities including display areas, backroom, produce cooler, and receiving area. We photographed the facilities and made a complete study of the entire produce operation. I would like to emphasize that thoroughness is most important. There are entirely too many local factors to be considered in the average store before final recommendations can be reached. Thoroughness of application and the completeness of reports will assist management in quickly evaluating the recommendations and speed up the initiating of the proposed changes in facilities and procedures.

After presenting our final report to the top-level personnel, we had the actual work of making the recommended changes. First of all we set up an entirely new produce backroom. Formerly the produce manager performed his backroom operations wherever he could find space near his cooler. We designated a space adjacent to the cooler entrance, and painted out the floor, labeling this area "For Produce Only." In order to obtain this space, it was necessary to find a new space for empty tonic cases and bottles. This created quite a problem, inasmuch as the entire backroom was about half the size it should have been for the amount of business in this store. By moving two small self-contained freezers, moving cracker and paper goods storage, and constructing a shed for empty tonic bottles on the outside of the building, we came up with a very workable area for the produce backroom operations. After we obtained the floor space, we rebuilt the packaging table, installed an angle iron trimveyor, garbage barrels, sufficient lighting, and painted out the walls. Needless to say, this was part of the time we had our coats off. Total cost to the store for the entire project was less than \$10. By way of explanation, secondhand materials were used in the construction of the storage shed, and were obtained at no charge from a building wrecker.

When the physical changes had been completed, we spent considerable time working with the new produce manager in establishing efficient work habits and demonstrating how he could best utilize these new facilities. It is at this point that the full cooperation and interest of the store personnel really pays off. Unless they are completely "sold on the project," they will smile and agree with all the recommendations and changes, and as soon as you have left will revert right back to the old method of operation.

We have found that a followup program should be included before a store project can be considered completed. Every so often, circumstances arise where work schedules as originally set up may need revision, or there may be some part of the recommended program that the store personnel do not fully understand. If such is the case, the continuance of the program may be in jeopardy. A few followup calls can do a great deal toward smoothing out any rough spots that may crop up, and they tend to assure the produce manager of our continued interest in his program.

By some standards, our marketing service work might be considered inconsequential. Our stores are small compared with those in and around the large metropolitan areas. But it is very gratifying to us to be recognized as more or less authorities on produce merchandising and to be asked for assistance by the retailers of Maine. Just a short time ago, for instance, one of the associations of retail grocers requested us to explain our work to their Board

of directors. As a result, a special letter was sent by the association to each of the members. We have received requests from 13 stores to assist them with their produce department operations, although this association warehouse does not even handle produce. (Each store makes its own purchases locally.) However, they do realize the value of a good produce department in attracting Mrs. Housewife into their stores. It is also gratifying to us to know that through our efforts we are assisting this same Mrs. Housewife in obtaining the best quality produce possible and at the lowest possible price.

OPPORTUNITIES FOR MARKETING SERVICE WORK WITH WHOLESALERS AND RETAILERS

E. L. Wermuth, New York Department of Agriculture and Markets

Our report from New York State will center, for the most part, around the initiation of marketing service work at the store level.

At last year's workshop we discussed the importance of U. S. Department of Agriculture training sessions in establishing self-confidence and "fine-edge" training for qualified marketing service personnel; and it might be pointed out again, it is just as important to have the technical background and understanding of the problems to be encountered as it is to have the best equipment possible to carry out a project. We feel they are practically essential to the inauguration of a marketing service program.

With proper training and "your house in order," to effectively carry out a service program it follows that the next step will be contacting a store organization interested in a project. The methods are numerous and not too difficult if you let the word get out that you have this service available. Dr. Hoecker and his staff have some excellent suggestions on how to approach this phase of the problem which will differ with each State and with the wholesale and retail organizations within the State.

Once you have established contact, there are certain steps that generally apply to the initiation of marketing service work at either wholesale or retail level. It would be difficult to rate the importance of each individual step, but the steps are interwoven and any one is dependent upon the others, and each is essential to a successful program.

Because we are building a program, it will serve to liken our approach to the construction of a house (or a store). In this light there are four logical steps in the construction of a sturdy building: (1) The footing, (2) a foundation, (3) the main body of the house, and (4) a roof.

1. The footing is laid at a meeting with the policy-making personnel of a store organization, and will determine the strength and durability of the structure that is to be built upon it. While top management is concerned with the broad implications and goals of the program, their thirst for specific detail is not as evident as at lower management levels. It is imperative, however, to explain fully what is expected from them in the form of a budget for improvements and in assistance from personnel who will be training with us on the project.

This is a base, not only for a single store project, but for any future marketing service work we may do within the framework of the chain. At this level it is necessary that definite policy be established, to be disseminated throughout the ranks of supervisors, store managers, department managers, and store personnel--paving the way for the program.

2. Upon the footing we place the foundation. A meeting with the supervisors is called since they are in direct control of individual store operations, and this, too, is the foundation upon which we will build our main structure.

Company policy being already established, the supervisors are concerned with more specific details of the project. In view of the fact that the stores operate under the direction of the supervisors, success of the project depends upon the degree of cooperation we receive from them. Probably more important than any other point at this level, is an adequate exchange of information between the supervisor and our marketing service representative, to establish a just basis for the selection of an individual store in which to carry out the project. We should avoid the best store, and the worst store too. A representative operation should be our goal.

3. Once we have made this store selection, to the satisfaction of management and ourselves, we are well on our way in the construction of our house, and we can begin nailing together the main structure--the initiation of marketing service work at the individual store level. At this stage we will be working closely with the store manager, the department manager, and store personnel; and in our initial meeting with them it is necessary to outline briefly why that particular store has been selected, and in a very general sense, what can be done to help them improve their operation. The project can be a complete success only with the interest, cooperation, and confidence of all the store people.

At this stage we acquaint ourselves with the operation of the backroom or other area where we will work. It is necessary to "live" with the operation for just as long as it takes to understand it fully and thoroughly. In addition to allowing us to learn the operation, it gives the store personnel a chance to become better acquainted with us and the purpose of our being there; further selling ourselves and the program on a personalized day-to-day basis.

During this time comes the first opportunity to assemble on paper the problems we have observed, along with the recommendations based on principles of work simplification. There can be no short-cut in drafting the suggestions, changes, recommendations, floor plans, and so forth. It is a time-consuming task, but must be done thoroughly before we can complete this third step by presenting the blueprints for improvement to top management for approval. If our recommendations are comprehensive and clearly presented, approval should be forthcoming.

4. With the building of any house that is intended to last, there must be a roof to protect the initial investment and to hold the entire structure together.

This final phase constitutes arranging for return visits to the store to make sure that workers have not slipped back into old practices, that the equipment is being used correctly, and that the present operation has not outgrown the installation. In general, it is a check to make sure that the program is being used. There are numerous benefits that can come from these return visits, and like the roof on our house, they are essential to the lasting durability and strength of the marketing service project.

What I have tried to show here, are simply some principles basic to building a sound program. Quite logically, the construction of a house can vary greatly, depending upon the needs of the occupants, the availability of native materials, the geographic location, and a host of other factors--the principles, however, should remain the same.

1. A sturdy footing upon which to build a program. Your initial meeting with top management to establish policy.
2. A firm foundation--your contact with the supervisors to present a detailed explanation of the principles of marketing service work, and the selection of a store.
3. The main structure--the actual initiation of work simplification methods and procedures at the store level.
4. A roof--to tie the entire project together, and protect the investment through return visits to reevaluate, to see that methods and equipment are being used, and to measure success.

PROBLEMS FACED BY THE INSTITUTIONAL BUYER IN PROCUREMENT OF FRUITS AND VEGETABLES

Stanley Davis

Davis Bros. Restaurants and Cafeterias

Although all of us in the restaurant business who make our living from producing and selling goods and service are indirectly in the produce business, we are all customers, too.

Every day we exercise our choice as customers, whether it is to buy one brand of chewing gum rather than another, or one make of automobile rather than another. Some mental process guides our choice in each case--something makes us decide for or against, before we put our money down. Of course that "something" is quality and value. As customers, we want the best and only buy the brand which gives it to us.

It is only natural that people in the market for our kind of product or service feel the same way. They, too, "shop around." They, too, measure our "quality and value" against competition, and in order to get the customer to buy from us, we must stand out above competition on both counts.

The problems involved in mass purchasing of fruits and vegetables require all the educational emphasis we can bring to bear--from the department of agriculture, local trade journals, and also the owners and management of food institutions. Our people should be able to judge grades, freshness, and quality of these products in order to insure their customers top quality food on the table.

It would be a good idea if the Department of Agriculture could publish a chart to be placed on the wall or bulletin board of every food establishment in the country, giving information on the purchase of quality produce and what to look out for. Ninety percent of the people operating restaurants today do not know what real quality produce is.

It is also my belief that if the produce dealers were to follow through with this same idea of educating the buyer as to quality, weight, and freshness, that it would be a big selling point with them. Often the packer is so busy advertising his name that he fails to mention what is inside the package. No doubt you have noticed the trend in the big food chains to educate housewives on how to purchase quality cuts of meat.

You have heard the old saying, "A restaurant does not make its profit in selling food but in buying it." This simply means that the restaurant man who buys the best quality gets more for his dollar, has more satisfied customers, and can sell his food cheaper. In the end, he can make more profit.

In explanation of this last statement, sometimes you might ask the price of a bushel of okra. You are quoted \$6 by one dealer and \$5.75 by another. What have you gained? Figuring 30 pounds of okra to the bushel equals 20 cents per pound or \$6; 24 pounds to the bushel at 20 cents per pound equals \$4.80. So in buying the bushel at \$5.75, all you have done was to force the dealer to take out 6 pounds of okra, reduce the price 25 cents and make an extra profit of 95 cents for himself in the bargain. That is what always happens to the price buyer.

All the produce man makes is about 25 cents on each bushel or crate that he sells. The grocer makes 2 cents a can. The meat man makes 2 cents per pound. How do you suppose they can live if every buyer can chisel a few cents on every item? The answer is simple. The price buyer just gets a lot more air, water, and space and less net weight, less drained weight, repacked oranges, heavily pumped hams and corned beef, and so forth. Price buying is a sharp practice and an unsound policy.

Purchasing involves the use of your five senses, sight, sound, smell, taste, and feel. The three basic things you must look for are variety, net weight, and maximum yield. Unless you are sure you are getting all three of these things, price does not mean a thing.

Grading of agricultural products should be performed by honest people who would take the specifications of the State and Federal Governments and enforce these laws at the entrance of our great farmers' markets across the land. This would insure two things--the public would get better food and the farmer would take greater pride in his products.

Produce dealers should take pride in their business, employ honest people with skill and ability, prominently display grades and prices, sell quality products, take pride in giving the best possible service, be alert to competition, and practice teamwork in their housekeeping, safety, and customer satisfaction.

It is my recommendation that more institutional and other food operators, wherever they may be, adopt the practice of displaying fresh fruits and produce daily. There is no better way to decorate your store with something that everybody enjoys looking at than to display fresh fruits and melons. Display them in baskets. Display fruit at your cash stand. Utilize window space for public acceptance of good fresh food. Let the people know that we are making an effort to please them and I can assure you that you will be well rewarded for your effort. There is another factor--by doing this you will also put your own employees on notice that you want to serve only the finest food. Display, departmentalize, and advertise top quality merchandise; and operate your business under the highest standards and ethics possible.

In summarizing, the Department of Agriculture should inform the buying public as to the necessity for grading, and put into their hands the educational material that will make them more conscious of good quality products. Under close supervision, I am certain this plan would insure health, happiness, and success for everyone.

WHAT STATE DEPARTMENTS OF AGRICULTURE CAN DO TO HELP THE
INSTITUTIONAL BUYER WITH PROCUREMENT OF FRUITS AND VEGETABLES

W. W. Anderson
Maryland State Board of Agriculture

I know of no greater or more interesting topic than talking about the subjects of foods, food buying, and marketing. These are indeed very broad subjects and each one of us here has had related experience in these fields; yet we hold similar but very different ideas on these subjects, for our food habits and backgrounds differ widely by regions, areas, and individual likes and dislikes, by choice and taste.

Perhaps to grasp this subject better and get some idea of the enormous quantities and kinds of food being purchased by the various Federal, State, county, and city institutions in the United States, and, more especially, your particular State or city, I will quote part of a USDA Progress Report for 1960. This report gives the amount in pounds of fresh fruits and vegetables purchased under competitive invitation bids and inspected on the basis of U.S. standards for basic requirements and added institutional specifications according to the local needs of the procurement agency and the end use.

The largest single buyer of fresh fruits and vegetables is the Marine and Quartermaster Corps, buying in 50 cities or stations, with a total tonnage of 684,268,292 pounds. Other buyers are the Navy, 19 cities, 139,000,000 pounds; veterans' hospitals, 37 cities or stations, 21,000,000 pounds; steamship lines, 19 cities, 57,000,000 pounds; other Federal institutions, 28 cities,

13,000,000 pounds; city, county, and State institutions, 43 cities, 86,000,000 pounds; and private agencies, 30 cities, 69,000,000 pounds.

With this tremendous amount of food being purchased by numerous institutions, government, private, and commercial, over the entire United States, we come now to some of the "hows" and "whys" and the methods presently being followed in assisting the numerous institutions in the procurement of their needed supplies.

Foremost, all intended produce supplies for the institutions are listed on competitive "invitation bids" with the amounts in pounds, containers, or units with the desired variety, size, count, pack, stage of ripeness, and grade or specification. These bids are prepared jointly by members of the institutions' Procurement and Home Economics' Departments and the USDA Inspection Service and forwarded to local merchants for bids.

A list of kinds and available produce is being issued monthly in the larger terminals by the Inspection Service designed especially for institutional information. The cost of this service is paid by the vendor, with no added costs for counseling service and inspection fees to institutions. With the use of precise written produce needs on invitation bids, along with specific grades and specifications, this is the backbone of better procurement policies and one of the most valuable tools yet devised to assist and aid the institutional contractor in securing his produce supplies.

We have talked a lot about the procurement of fresh fruits and vegetables without mentioning processed foods. Processed foods in their many forms are in the limelight both in the large amount used and in the earned popularity of being in condensed form, preparation free, and in many cases ready to serve on short notice. The counseling and inspection service by the AMS graders is very similar in both branches of the USDA. The invitation bids for processed fruits and vegetables are prepared showing the commodities wanted and in what style pack, size of container or net weight, grade or specification, net drained weight, and other requirements as may be appropriate for the commodity or end use.

This inspection service, too, is paid by the vendor when so indicated on the invitation bids. Whether we are buying fruits and vegetables in the fresh or processed form, we again emphasize the necessity for clear-cut specifications or standards for the criteria of quality wanted.

We might survey the assistance rendered to our institutions in Maryland for the past few years, and in addition indicate to you as a State worker what may be done in your particular field of endeavor as well as region of production. Maryland is geographically small compared to many other States, and likewise its institutions are correspondingly small in number. However, we have some 35 institutions, including State, county, and city, being serviced from a central purchasing agency.

About 10 years ago we participated in food classes being held in Baltimore for employees of grocery stores, restaurants, cafeterias, and food buying institutions. With the assistance of local wholesalers, we were furnished a large assortment of fresh fruits and vegetables and used this material for demonstration purposes in selecting, grading, and emphasizing the quality factors and requirements for the most suitable and best quality items for their needs.

We hold an annual Farm and Food Day Conference, with the 35 institutions represented by members of the Foods and Procurement Department, along with our State department of agriculture and home economics specialists on the program to discuss special topics on food procurement, including fruits and vegetables, dairy and poultry products, and meats of all types; and other timely topics on various methods of food preparation, nutrition, diets, rations, and the preparation and processing of vegetables.

Feeding the 20,000 people represented in these institutions is a big job and requires much labor and technical assistance. Labor for this purpose is scarce even on our penal farms. A number of our institutions have farms and produce much of their fruits and, especially, vegetables. Three institutions have processing plants and process fruits and vegetables for their needs as well as other nearby State or county institutions. I am sure you have similar institutions in your State.

There are many and varied problems of both the commercial and State food serving establishments to which we as State workers can lend a helping hand, not only in procurement of supplies, but other areas that must be coordinated with procurement in order to best utilize the economies and efficiencies all along the line for the institution as a whole. We have already pointed out in a small way the volume of business and the present methods now being used to secure supplies. There is much yet to be explored in the purchasing, preparation, handling, transportation, and storing of foods, especially the foods requiring low temperature storage.

There is an opportunity for more service by State specialists in agricultural engineering for the modernizing of present facilities, and, if possible, enlarging or making new storage space and work space available. So many of the institutions in Maryland have inadequate storage space, which does not permit them to purchase either fresh or processed foods in economic wholesale loads--requiring almost daily replacement of supplies, costing more for transportation, and purchases are often made at retail prices.

Along with engineer-designed facilities are needed more efficient work methods; rearranging work stations to reduce distances of reach, walk, and move motion, and fitting work surfaces to height of workers; better lighting systems; orderliness; and better surfaces for frequent cleaning.

There is today a need for expanded research in food technology. Producers and processors are expected to increase or expand their present operation and in addition develop new types or forms of food, including prepared foods, dehydro-frozen foods with low moisture, added flavor foods, and in general more highly concentrated foods. This new type venture has many advantages for the institutional buyer and user, for this promises new trends in handling the finished product, especially by reducing tonnage in transportation, handling and storing, with labor-saving costs all along the line.

There should be an opportunity for two-way communications from our several State departments to food serving institutions for assistance and information on new types of food servings, new ways to prepare and serve old products, panel testing new foods for consumer acceptance, improve specifications

timely and seasonal information on menus, planning aids, new recipes, evaluate intrinsic qualities, develop new standards, and approximate cost and servings or portions per unit. In general, a clearinghouse to pass along all usable research methods and techniques for institutional needs.

We believe that specialists from one of several States or the U. S. Department of Agriculture can become an integral part in assisting the Institutional Procurement Department as instructors for evening classes for any ambitious commercial group wanting to acquire information and knowledge on foods, food buying, grades and qualities, specifications, food preparation, servings, food processing and related information, along with guided tours of similar business establishments and a comprehensive study of their operations.

For the institutional buyer who must keep posted on available supplies of fresh fruits, vegetables, and other farm products, the State specialist is in a position to furnish timely information through market news channels, the plentiful foods' program of the USDA with supplements of local or State abundance, prices, supplies, and specialty items.

We believe every business today, especially food using institutions, should have comprehensive and realistic accounting and control procedures. This would be of utmost mutual importance to the State specialist as well as the institution in pointing up the procurement problems of the institution. The development of such a program would be used to reflect and pinpoint the flow of materials used per week or month, inventories, replacement needs with re-order system, warehouse, receipt and delivery control sheets, operating expense, operating results, turnover expenses, interest, taxes, insurance, and merchandise inventory.

Another opportunity for possible assistance by the State specialist is, with the cooperation of the institution, surveying the plants for improved or added equipment. No piece of equipment should go unnoticed which might do a certain job better or quicker. There are numerous new labor-saving appliances that will cut labor and time in the conversion of raw foods into ready to serve or processed form. There is also other miniature or normal sized equipment used in canning establishments which could be adapted to the preparation of foods at the institutional level. Such equipment could be bought new or second-hand from a cannery going out of business. I am thinking in terms of:

1. Apple peelers and potato peelers.
2. Machine to cut corn off the cob.
3. Corn husker.
4. Commercial washer for many leafy vegetables and root crops.
5. Small miniature podder for shelling peas, lima beans, and Southern peas.
6. Bean snipper for cutting ends of beans.
7. Bean cutter which will cut beans into desired lengths.

From this list, you can tell these pieces of equipment could save much time in preparation and labor costs.

CONCLUSIONS AND RECOMMENDATIONS

of Work Group on Fruits and Vegetables

Coordination and cooperation among various State and Federal agencies were stressed as important factors in aiding in the solution of marketing problems. By coordinated effort on the part of all participating agencies, productive results are being obtained with a minimum of duplicated effort. Several States reported the establishment of marketing councils or public relations councils. The group recommended the continued activity of these councils in the States where they are established and encouraged the development of similar organizations in other States.

With respect to promotion it was recognized that agriculture, and particularly the fresh fruit and vegetable industry, is many years behind manufactured products. This field is wide open for proper development programs. The basic steps of promotion are the same but there is a set formula for all commodities, therefore, there is a need for information on proper methods.

There was general agreement that promotion has an important place in future developments, but to be successful it must be accompanied by dependable product quality. Quality control is a must.

There was recognition of the need for development of new packages to meet the constant demand for delivery of produce in the very best of condition, and improvement in sizes of containers desired by the trade.

Cost of containers in relation to net returns must be considered. States should take an active part in a program of evaluation and appraisal and furnish leadership in the development of improved containers and better labeling practices. Attention should be given to the development of containers best adapted to each commodity.

A project covering marketing service work with wholesalers and retailers was discussed. The objective of this project is to promote more efficient methods and better practices at the wholesale and retail levels which will cut costs, reduce waste, and improve the appearance of produce displayed in retail stores. It is a program of teaching the teachers. The objectives are accomplished by the use of clinics attended by State personnel who in turn conduct similar produce clinics attended by retail store personnel.

A suggested produce clinic agenda was presented. It included such topics as: Work simplification, principles of motion economy; trimming methods; ordering, receiving, and storage methods; backroom organization and layout; customer service and display; prepackaging; and merchandising implications.

Two States, Maine and New York, reported on their activities in this field and expressed satisfaction with progress so far.

The group suggested further study should be made by individual States and requested another discussion on this subject at the next workshop.

Institutional buying, both commercial and governmental, is increasing rapidly. Most institutions want the best in quality or at least produce of better than average quality. Inferior products are often accepted at point of delivery because the receiving agent does not know quality. As a result they often suffer losses and switch to some other commodity. Thus the growers of fruits and vegetables suffer in the loss of good customers.

State departments of agriculture have a source of well trained personnel who have the "know-how" and ability to be of great assistance to those employed in the procurement of fruits and vegetables. This may be accomplished by:

1. Providing inspection on produce procured on bid basis.
2. Assisting institutional buyers in developing specifications for individual commodities.
3. Conducting grading demonstrations for purchasing agents to encourage awareness of grade standards and their use.
4. Providing counsel concerning fruit and vegetable marketing, for example, suggesting types and varieties most suitable for different uses.
5. Participating in trade shows to publicize the different grades and good grading practices.
6. Publicizing local fruits and vegetables in abundant supply. (Quite often local surpluses exist when nationally the commodity is not in oversupply.)
7. Developing educational material such as grade standards in simplified form.

In this field of institutional procurement activities much more can be accomplished in the way of service work than is now being done.

GRAIN

Work Group Sessions

NEW RESEARCH DEVELOPMENTS IN THE MARKETING OF GRAIN

Kenneth R. Majors, Federal Extension Service
and

Warren K. Trotter, Agricultural Marketing Service

New or improved design and improved materials are providing the wheat producer with more and better on-farm storage structures so he can hold more of his crop off the market and out of the marketing channels. He invests in more materials-handling equipment to improve his efficiency. Better aeration methods know-how, and equipment, together with improved and properly used fumigants,

enable the wheat producer to store his wheat on the farm longer without loss in quality. This ability to hold grain over a longer period, coupled with better information on market conditions and trends, provides him a better opportunity to take advantage of seasonal changes in market prices.

For the farmer who trucks his wheat to the local elevator at harvest time there is available in some localities a new rapid protein test that can determine in a few moments the protein content of his load. This gives him a better possibility, eventually, of being paid a price based on actual protein content instead of a price based on the "station average" and should provide him more incentive to produce the quality of wheat demanded by millers.

Another development at the farm level is the trend to earlier harvesting and the storing of high-moisture grain. Corn, of course, is the grain principally involved. On-farm storage of corn at high-moisture levels for direct feeding, believed to be currently on the increase, is one side of this picture. Hermetically-sealed silos is one approach; application of chemical mold inhibitors is another.

Temporary storage of high-moisture grain until it can be put through a drier or transported to more distant points for drying or disposition is another part of this picture. Specially heated aeration systems and driers, and chemical mold inhibitors, are used in the attempt to maintain quality to reduce the prospects of drastic deterioration in quality at the producer level. These practices also apply at the local elevator level.

The efficiency and proper use of this equipment at the farm or local elevator level certainly is one of the major problems for those in grain marketing. Wet millers, who use about 150 million bushels of corn annually, have had difficulties with artificially dried corn which probably resulted from improper drying treatments. Agricultural Marketing Service and many of the agricultural experiment stations are devoting considerable effort to determine proper conditions for drying, and the time and temperature limitations that apply to the different grains.

Certain new milling procedures developed in the past few years perhaps have more potential significance to the local and regional wheat marketing structure than any other technical development. Production of a quality bread flour in the past has involved careful selection and blending of hard wheats having a relatively high percentage of high quality protein. Seasonal and geographic variations in the quantity and quality of protein in wheat has complicated this problem. In this situation, procurement and transportation costs represent a rather large share of the total cost of producing flour. Production of cake, pastry, biscuit, cookie, and cracker flours has depended in the past on the availability of supplies of suitable soft wheats. Production of these flours has, therefore, been centered in areas growing soft wheats. One of the new milling procedures, known as air classification or turbo milling, may change this picture considerably.

Using air classification, any number of flour fractions varying in their relative composition of protein and starch can be produced from a given wheat. However, practical considerations tend to limit interest to four major fractions: (1) A high-protein fraction, (2) a high-starch fraction, (3) an intermediate-starch

fraction, and (4) the endosperm chunk fraction. The relative composition and amounts obtained of each of these fractions varies with the type and variety of wheat and the manner in which the classification procedure is applied. Within certain limits, determined largely by the inherent quality of the protein present, these fractions can be recombined in varying proportions to meet the demands of flour buyers. Thus, the process gives the flour miller much greater leeway in what he can do with the wheat most economically available to him, and at the same time increases his control over the quality of the finished product. However, it must be emphasized that this control applies only to (1) the level of protein in the flour, and (2) flour particle size. Although both of these factors are important in determining baking quality, protein quality is also important. The miller is still very much dependent on the inherent quality of the protein in wheat in determining its suitability for producing good bread flour. In other words, air classification may give the miller considerable control over the quantity of protein in a flour but not over its quality and the two factors are not interchangeable, at least insofar as bread flour is concerned.

Under conventional milling systems procurement and transportation costs can run as high as 35 to 40 percent of the delivered price of flour to bakeries. Air classification may offer milling firms in certain areas a way to reduce this cost and at the same time produce a more uniform quality flour better suited to the increased mechanization of bakery operations. However, markets must be available for any flour fractions that cannot go into the conventional line of bakery products. If products can be developed having unique properties suitable for industrial uses, such outlets could become important markets for wheat products.

The wide variety of flour fractions now obtainable by the air-classification process, coupled with the increased value of certain fractions of flour for specific food products (particularly the high-protein fraction), have definite implications for the availability of fractions of lesser value which might become available at economic prices for industrial applications. Under such a division of end-use outlets it may be expected that the total return for all fractions will provide a profitable return to the miller, and the considerable amount of wheat products available for industrial uses will result in a larger total outlet for wheat grain. Much of the research of the Department of Agriculture on air classification is designed to develop techniques and products that will facilitate the operation of this concept.

Upon completion of studies to determine what is possible by the air-classification process, attention will be given to the development of new and improved processing operations. The flour fractions obtained from these milling studies are used in research investigations to produce new products that will meet the requirements of large-scale use as (1) sizings, coatings, and wet strength additives in the pulp and paper industry; (2) superior quality adhesives and binders for general use; and (3) improved textile sizing and finishing materials. Work is also underway on the chemical and fermentation modification of flour fractions to produce water-soluble gums, coatings, and plastic compositions.

In all the studies named, particular attention is being given to the use of starch-rich and protein-rich fractions. The fractions obtained in the

experimental milling laboratory which have potential for food and bakery uses are made available for research conducted at the U. S. Department of Agriculture's Western Utilization Research and Development Division at Albany, California. The Wheat Quality Laboratories of the Department's Crop Research Division, located at Wooster, Ohio, and Pullman, Washington, are conducting studies of air-classified flour fractions with particular reference to the suitability of fractions obtained from different wheat varieties for the production of high-quality cracker, cookie, and cake flours and to develop means of testing the suitability of new wheat varieties for air classification.

Preliminary surveys have been made by the Agricultural Marketing Service and the Northern Utilization Research and Development Division to assess the potential value of the new process for the optimal use of wheat flour fractions in food and industrial markets. Also, a related market study is underway to more fully assess the problems and opportunities for expanding the use of cereal grain materials in the adhesive field. Similar studies are planned for the paper and paperboard, and textile fields.

In addition to these applied and fundamental research studies and surveys concerned with air classification of wheat flour, considerable effort is being spent on elucidation of the chemical and physical properties of wheat gluten proteins responsible for their utility in food, feed, and industrial applications.

In-mill transport of wheat flour stocks by pneumatic rather than by mechanical and gravity systems, and the bulk storage, handling, and transportation of the final flour product make up another and more recent type of mill modernization trend in the flour milling industry. Large bulk bins store large volumes of flour. Flour from these bins can be flowed to the packing line or to bulk outloading as desired. This, in one type of application, is helping to adjust the 24-hour mill production schedule to a shorter packing line shift. For bulk outloading, there are portable "Tote" bins holding around 3,000 pounds of flour and hoppers for bulk flour trucks for transport over highways direct to the bakery. Special Airslide cars now used by 23 major railroads provide bulk shipment to the bakery site by rail, where pneumatic unloaders transfer the flour direct into the baker's own bulk bins.

Maintaining proper sanitation in these bulk flour handling systems becomes a major matter. A specific problem of this type, related to the condition of unloaded bulk cars returning to the mill and caused by condensation of moisture on residual traces of flour, has been largely solved by an air-changing device.

Bulk terminal facilities, either mill-owned or independently-owned, have been established to supply bakeries located off rail lines. Distribution to local areas is made with bulk trucks or Tote bin arrangements.

Bulk handling at the bakery has had a definite influence on the baker's demand for various types of wheat flour. Because of the added cost of bin space and pneumatic conveyor systems, bulk handling tends to reduce the number of kinds of flour the baker can stock. For example, instead of using clears for fortifying flours for dark breads, he is shifting to vital gluten or an air-classified high-protein flour fraction. The latter products are more concentrated, take less time for aging, and can be used in a wider variety of end products. Thus, they take up less storage space than clears. In many cases the

concentrates can be handled in bags, even in the large-scale bakeries. The air-classified high-protein flour fractions appear to be somewhat more versatile than vital gluten because they can be used in standard white bread whereas vital gluten is not allowed by present standards of identity for that product. It is said, too, that the protein in air-classified fractions is of higher nutritive value than that in vital gluten.

A common practice in bakery operations is the blending of two or more kinds of flour to obtain characteristics desired for a specific end-product. For example, some bakers are reported to use as many as six different kinds of flour in their standard bread products. More common is the practice of blending spring and winter wheat flour in a 1:2 or 1:1 ratio for their standard bread products. Bulk handling has tended to restrict this practice and in turn has stimulated the demand for "mill blends" that are adaptable to a wider variety of end-product uses.

The baking industry, likewise, has its share of new processes that influence the flours it requires from the milling industry and the products it makes for the housewife. Among these is the advent of the continuous mixing process for bread production that is automated from the point where the flour is combined with a prefermented brew to where the baked loaf leaves the oven. Much space and labor is saved with the new procedure but a different type of fermentation procedure--called preferment or brew formation--must be used, which reportedly adversely affects aroma and flavor. More uniformity and mixing tolerance are required in flours used in the continuous mixing process. We are told that, because of this, air-classified bread flour is better adapted for use with this process than is conventionally-milled flour.

The Western Utilization Research and Development Division, ARS, at Albany, California, is currently studying the chemical factors which account for the aroma and flavor of freshly baked breads so that these factors may be restored to enhance the acceptability of commercially baked bread.

Another significant development in the baking field has to do with the frozen preservation of various types of baked goods. The radius and patterns of distribution of frozen baked or semibaked breads can be enlarged, and certain in-plant economies are made possible by baking in larger quantities, particularly specialty items, and freezing part of the production for later sales. USDA has done considerable research on this to find proper conditions for freezing, storing in the frozen state, and thawing. The economics of distributing frozen bread products are being studied by AMS personnel stationed at Albany, California.

An age-old wheat food product called bulgur has been brought up to date in quality and shelf-life, and in a convenience-food form. The process was originally developed for conversion of Pacific Northwest white wheat into a pre-cooked food product for export to the Orient. Production is now being expanded to supply supermarkets on the west coast. Research is underway in USDA, supported by wheat growers of the hard red winter wheat region, to develop a similar product from this abundant hard wheat. AMS, in cooperation with Kansas wheat growers, has planned a market study on this product to test its acceptability by consumers. Various new, more convenient forms of the product have been developed. Bulgur can be used much like rice but has a distinctive flavor of its own.

Another notable achievement has been the development of a series of chemically modified wheat flour products having potential value for industrial uses. By treating flours in the dry state with certain chemical gases, important new properties are obtained. A paste made from one new product has properties that enhance its use in commercial large-scale adhesive applications employing high-speed equipment. Flow characteristics and stability in regard to thickness or viscosity of the paste are greatly improved.

Development of a new type of corn as a source of a special type of starch for industrial use has been a long-term cooperative project between USDA utilization research workers and the plant breeders. Starch from normal field corn consists of a mixture of two kinds of starch molecules--amylose (linear type) and amylopectin (branched type)--present in rather fixed ratios. Waxy-type corn, already a special corn crop for industrial use, produces a starch consisting almost entirely of amylopectin--the branched type of molecule. Because of important potential uses for linear-type starch in paper coatings, fibers, and films, the current research is attempting to develop a variety of corn containing 90 to 95 percent amylose starch. One crop of around 7,000 bushels with the starch containing about 55 percent amylose has been harvested, processed, and the starch marketed for special purposes by two commercial starch companies. Also, a smaller quantity of corn containing starch with around 70 percent amylose has been harvested and processed. Plant breeders now have several samples of corn with 80 to 85 percent amylose starch. In the next 5 to 10 years a type of corn with the desired high level of amylose for wide-scale commercial application is expected to be available.

Quite unique industrial thickening agents have been developed by special fermentation of cereal grain materials. One such product is phosphomannan, produced by a microorganism in a feeding medium containing, among other things, glucose derived from corn starch. One or two-percent solutions of the phosphomannan gum become quite thick by addition of small amounts of borax. The viscosity can be reduced radically by adding traces of chloride salts. Another industrially valuable microbial gum, developed by USDA, maintains its viscosity under similar conditions. These unique materials are being evaluated at the present time by a number of commercial firms.

Utilization research has found a way to produce, from corn starch, a highly reactive series of carbohydrate chemicals known as dialdehyde starches. A low cost electrolytic process was developed for this purpose. Dialdehyde starches are believed to have considerable potential in several large-scale industrial uses. These applications, now under extensive evaluation following preliminary trials with favorable results, include leather tanning and incorporation with paper stocks to improve dry and wet strengths of the paper products. Another discovery involves a resinlike polymer that forms films on glass, metal, paper, or wood (by chemical modification of dialdehyde starch with allyl alcohol). Dialdehyde starches, either alone or as chemically modified, appear to have very promising possibilities in several other outlets.

This brief review of the more significant new developments in grain marketing and utilization was designed to stimulate your thinking and discussion as to how these developments may influence or be incorporated into your marketing service programs. Also, a knowledge of these new developments and some of their implications can assist you in projecting and interpreting future trends in grain marketing.

SOYBEAN MARKETING PROGRAM BEING CONDUCTED UNDER MATCHING
FUND PROJECTS

O. W. Faison
North Carolina Department of Agriculture

The soybean marketing program in North Carolina is incorporated into and a part of the overall grain marketing service program. Our program is designed to (1) increase farm and commercial grain storage; (2) increase feed processing and soybean processing facilities; (3) assist firms to reduce operating costs; (4) assist operators in the operation of grain dryers to condition grain and soybeans for processing and to maintain quality while in storage; (5) assist firms in buying and selling on grade basis; and (6) assist firms in better management to operate efficiently and on a competitive basis.

We have progressively increased our soybean production from 5 million bushels in 1955 to 12 million bushels in 1960. Our livestock, poultry, and swine production have made tremendous increases that resulted in demands for soybean meal. With these conditions taking place, we observed that we were not only short on storage capacity but also had obsolete soybean processing facilities. Being somewhat a cotton producing State, the obsolete plants were processing cottonseed and had not shifted into soybean crushing. However, the reduction in cotton acreage in recent years caused many to begin processing soybeans.

This change brought about several problems. The old screw and press methods of extracting oil were leaving approximately 4 percent of the oil in the meal cake. Therefore, in many cases, the export markets on a competitive basis were not only purchasing soybeans directly from dealers but were also buying from the soybean processors. This also meant that the local demand for soybean meal could not be met without shipping from the west. Specialists worked very closely with the soybean processors and through the soybean crushers association to bring this situation to their attention. Assisting in developing better soybean processing facilities was carried on in conjunction with increasing grain storage and marketing facilities. Specialists did not get into the technical phase of drawing plans, installation and operation because this is a highly specialized field in itself. Surveys were made by areas to determine the production; the number of processing facilities; types of operation; storage capacities, marketing trends, and conditions; cost of building storage facilities, and operating costs as they relate to receiving, handling, drying and storage of soybeans. Similar surveys are made for grain storage and marketing facilities except we estimate the volume of grain handled and the anticipated income for the overall operation. In each case, a specialist met with the firm representative or groups to summarize the survey and make recommendations. During the past 2 years, 3 modern solvent soybean processing plants have been constructed and placed in operation. These new plants have stimulated an increase in production of 3 million bushels from 1959-60, and we anticipate our total production to reach 15 to 20 million bushels in the next 3 to 5 years. Our market outlets for soybean meal are very good not only in North Carolina but also in other southeastern States. Producers of poultry and livestock have benefited through savings on freight.

The following is a summary of activities in our market service program for last year.

Assistance was given 19 firms in planning new and expanding existing facilities to provide for 1,901,400 bushels of additional storage space. Personnel at 194 firms were trained in the use of equipment and the techniques of factor determination in merchandising grain on grade basis. Other activities included: (1) Surveying 5 marketing areas to determine the need for and the economic justification of new grain facilities; (2) planning and conducting 3 specialized training meetings, one on management and marketing, and 2 on grain grading and elevator operation; (3) discussing merchandising on grade basis and demonstrating grading procedures in 21 county meetings with 434 producers and dealers attending; (4) participating in 33 group meetings attended by 1,064 farmers and dealers to discuss trends and changes taking place in the grain industry, methods of harvesting and handling grain, production, prices, movement, and elevator operation; and (5) preparing and distributing a publication on "Marketing Grain on Grade and Quality."

While the benefits of much of this work will be realized over a period of years, it is estimated that the additional storage facilities alone will represent a savings of \$1-3/4 million to producers of grain, livestock, poultry, swine, and the industry because transportation costs for shipping grain out of the State during harvest season and back in later in the year will be eliminated along with losses to insects, birds, and rodents.

Another valuable aspect to the producer is that the number of firms merchandising on grade has increased 10 percent during the past year. This means producers marketing through these firms received 3 to 5 cents per bushel more for their grain than they would have had they not sold on a grade basis. Other benefits on which no specific values can be placed are more uniformity in prices quoted within a trading area and more orderly marketing of grain from farm and elevator to feed processing plants and to export outlets.

We estimate that approximately 3 million bushels of commercial and 5 million bushels of farm storage facilities will be constructed in North Carolina during 1960-61.

Those of us who are conducting these service programs should continue to look for possible market outlets for agricultural products. We should also revise our market service program to meet the changing demands for assistance by the producer and the industry.

SERVICE PROGRAMS NEEDED IN SOUTHERN STATES TO
FACILITATE THE MARKETING OF GRAIN

Reid M. Grigsby
Louisiana State University

The day has passed when any agency of the State or Federal Government is capable of going it alone. In every State, where one domestic agency tries to take over all the activities involved in assisting modern agriculture, it is obvious that little work or progress is being accomplished.

We are indeed proud of the mutual respect the Agricultural Extension Service, the Experiment Stations, and the State Departments of Agriculture have for each other. This didn't just happen. Each of us has a very vivid memory of what transpired during the period when, individually, we tried to go it alone. We have seen to it that such a condition has not recurred in the last 10 years.

We do not have an Extension grain marketing program or an Experiment Station grain marketing program or a State grain marketing program, instead we have a Louisiana grain marketing program in which all three agencies carry their respective loads with each one's work coordinated to serve the best interest of Louisiana's grain industry.

We have to work at this coordination, it doesn't come naturally, and unless you do work at it, you end up with nothing.

Some service programs which hold promise of assisting more efficient grain marketing programs are:

1. Continuous grain grading demonstrations.
2. Grain handlers' workshops or schools.
 - a. Techniques.
 - b. Blending.
 - c. Drying.
 - d. Storage.
 - e. Transportation.
 - f. Aeration.
 - g. Accounting.
3. Grain managers' workshops or schools.
4. Market news clinics.
5. Regional meetings.
6. Develop associated industry, such as feed mills, calibrating moisture testing and working closely with port authorities and grain exporters.

RESEARCH FINDINGS ON THE TRANSPORTATION OF GRAIN

Robert C. Haldeman
AMS, U. S. Department of Agriculture

On the basis of preliminary analysis of the data collected in our survey of grain transportation in the North Central Region we concluded motortruck and barge transportation were becoming increasingly important factors in the movement of grain. In August of this year we published Statistical Bulletin No. 268, which includes basic data from the grain survey conducted in the winter months of 1958. Marketing data on grain transportation provide basic information on which shippers, markets, processors, and others can make sound, well-founded decisions in reference to current as well as future policy.

Practically all of the Government-owned grain moves by rail to gain flexibility in storage locations. In 1958, Government grain movements from country houses accounted for 15 percent of all grain shipments and one-fourth of the volume from terminal elevators. The survey indicated that during the 5-year period 1954 to 1958, the railroads' comparative share of "free" grain

shipments by rail and truck from country houses dropped from 85 to 74 percent to known destinations in the North Central Region, and dropped from 42 to 35 percent to destinations outside the region. Of all "free" grain shipments from country elevators in 1958, the railroads carried 69 percent, the trucks 30 percent, and barges 1 percent. Trucks made their biggest impact in the movement of coarse grains. Railroads continued to carry the lion's share of the wheat, barley, and sorghums for grain.

General percentage rail rate increases have about doubled grain transportation rates since World War II. Country elevator operators were asked reasons for increased use of trucks. They indicated that both the increased rail rates and service factors had contributed, but there was somewhat greater emphasis on rail rate increases. Reasons given were shortages of rail cars, poor condition of cars, and more favorable rates and service by truck. Private truck transportation in 1958 was most important in the overall grain movement from the country. For-hire trucks were the primary movers of trucked grain to terminals. The merchant trucker who buys and pays for the grain at the elevator predominated in movements to feeding areas.

Particularly significant was the influence of the inland waterways and the Great Lakes on grain movements from country elevators. In 1958 about one-half of the free grain that moved from country houses went to first destinations located on our inland waterways. Because grain movement by truck and by water is largely unregulated, there is a close tie-in between truck volumes to lake and river ports and outbound movements by water. It has been said that for every bushel of grain moving into the Minneapolis market by truck, a bushel moves outbound by barge.

From terminal elevators the rail share of total grain shipments dropped from 69 percent in 1954 to 64 percent in 1958. Movements outbound by truck increased from 1 to 2 percent. The water carriers' share increased from 31 to 34 percent. The major criticisms of rail service by the terminals were the frequent shortages of cars and the high level of rates. Since World War II about 36 percent of the terminals reported a decline in the share of grain shipped by rail, but the rails still are the major carrier. The availability of rail transit privileges and the fact that elevator facilities are designed primarily for receiving and shipping grain by rail are factors in the retention of non-government grain by the rails.

Through 1958 there had been some reductions in rail rates to meet competitive factors. Principal reductions included the so-called 4800 reduced rates applying to coarse grains moving to markets from country origins in mid-western territory. These reduced rates resulted in greater proportions of total "free" grain traffic moving by rail, but it would appear that railroad rate reductions are most effective when they apply to the gathering rates into the market.

Developments in grain transportation since 1958 have been rapid. Grain prices at country points usually reflect the value of grain at the terminal markets less the transportation charges into the market. The grain transportation rate structure has been characterized by comparatively high rail rates, as related to distance, for movements into the markets and lower rates beyond the markets to ultimate destinations.

As the survey showed, rail grain traffic into the markets has been eroded by truck competition, trucks being able to undercut the comparatively high rail charges. Although truck rates may be lower, motortruck costs per mile considerably exceed comparable rail carrier costs for the greater distances. Beyond the markets a heavy percentage of grain moves by water. Generally, carrier costs by water are lower than railroad costs. But water transportation requires large volume shipments and is confined to commercially developed channels.

In the past, the Interstate Commerce Commission has prescribed more or less fixed differentials between rail and water rate levels. But in the Transportation Act of 1958 the Rule of Rate Making of the ICC Act was amended to read: "Rates of a carrier should not be held up to a particular level to protect the traffic of any other mode of transportation, giving due consideration to the objectives of the national transportation policy declared in this Act." Since this became effective, the Commission, carriers, and shippers have increased the use of carrier costs in supporting proposed rate charges. Loss of grain traffic by the rails and the 1958 provisions of the Act have encouraged the rails to reduce rates where costs and competition support proposed adjustments. Rail accessional services have been cut to reduce costs. Selective piece-meal rate cutting has disrupted historic grain marketing channels that equalized grain transportation charges by rail from broad producing areas in the North Central Region to numerous markets in the east and south.

The opening of the St. Lawrence Seaway in April of 1959 focused the attention of the railroads on steps needed to meet the competitive threat of the Seaway for grain movement. Since the opening we have witnessed a competitive struggle among the railroads as well as between the railroads, barge lines, and truckers. Let us review briefly just what happened in 1959. Overseas exports from U. S. ports on the Great Lakes totaled about 114 million bushels of grain. In 1958, over the Great Lakes and shallow draft St. Lawrence canals, our exports totaled 20 million bushels. In 1959 grain exports through North Atlantic ports declined and the relative upward trend of exports through Gulf ports was arrested although the Gulf still accounted for over 50 percent of the total volume.

So the going got tough for the railroads and they responded with major export rate reductions effective in June of 1959 from origins east of the Mississippi River and north of the Ohio River to North Atlantic ports. These reductions applied to raw grain and the new rates reflected a level that had prevailed 10 years earlier. Following the Eastern lines' action, reductions also were made by the North-South lines serving Gulf ports.

Some significant changes have occurred in the charges made by Western lines into the markets. While Seaway competition undoubtedly stimulated some of these changes, most of them have been directly related to competition from trucks and barges.

I want to emphasize the disruptive influence of these changes on historic marketing channels. First, the Eastern lines' export reduction was made effective from country as well as terminal origins in affected territory north of the Ohio River. In many cases these country origins were able to ship grain directly from Illinois and western Indiana to North Atlantic ports more economically than they could move it through the Chicago market to the same ports of exit. In other

words, the reduction was on a point to point basis and resulted in decreased handling of grain at the Chicago market in 1959. The Gulf lines reductions again applied from country origins and affected the pattern of grain movement by rail as well as by barge.

In March 1960, Western lines reduced rates into Lake markets from the Missouri River crossings and from specific country origins in Minnesota and Iowa to these markets in an attempt to meet truck competition and to broaden the area from which grain could move economically for export by the Great Lakes-Seaway route. From the Missouri River origins to Lake ports proportional rates were reduced, retaining the historic rail rate structure over the rate break-points, as provided by the I.C.C. in the Western Grain Case.

Early in 1960, Northern lines published substantially reduced rates on wheat, rye, flaxseed, and oats, applying from origins in Minnesota, eastern North Dakota and northeastern South Dakota to the ports of Minneapolis and Duluth. They are so-called "non-transit" rates. Actually they permit one transit for storage. They were designed to stop the surging growth of trucked grain transportation into these markets. Although these rates are now in effect, they are under investigation by the I.C.C. Two rate bases now apply from this territory, one of them averaging 6 cents a bushel greater than the other, this differential depending on the distance from the markets. The higher rates permit storage and milling in transit with the application of low proportional rail rates beyond Minneapolis and Duluth to Chicago and other markets. The "non-transit" rates prohibit the use of the lower proportional rail rates beyond the markets. The grain moving inbound on the "non-transit" rates is effectively restricted to truck or water movement outbound.

Geographical factors are extremely important in terms of outbound movements from Duluth and Minneapolis. Historically, 85 percent of the grain moving into Duluth is moved outbound by water, 15 percent by rail. In contrast, 85 to 90 percent of the outbound grain beyond Minneapolis was moved by rail with only 10 or 15 percent moving by water. Because of the "non-transit" rates, it is reported that Duluth buyers, with most of their grain moving out by water, are able to pay more for wheat than the Minneapolis buyer can pay when the grain originates within the "non-transit" territory. Truck grain moving to Duluth is said to be discounted about 2 cents a bushel from the Minneapolis price. According to millers' testimony in the I.C.C. investigation of the "non-transit" rates, those in the Duluth market are able to pay 3 to 4 cents a bushel more for their grain than the Minneapolis buyer, seriously affecting the ability of the Minneapolis buyer to secure the specific quality of grain required in his operations. Those mills located at interior points west of Duluth and Minneapolis are also reportedly faced with the necessity of either paying more for their raw grain originating in "non-transit" territory to meet the bids of Duluth buyers, or securing their grain from points farther west.

So far this year, barge volume from the Minneapolis market is under last year. Total truck shipments into the Duluth market in the 9-month period this year are about double what they were last year, but the principal increases have been in barley, oats, and soybeans. Truck volume of wheat is up about one-third, but it is reported that much of this originates west of "non-transit" territory.

The coarse grain rate reductions made from the Missouri River markets and from country origins in southern Minnesota and Iowa have resulted in a considerable increase in coarse grain volume moving by rail into the Minneapolis market, and the truck movement of coarse grain into this market is down substantially from last year. Barge volume of grain from ports on the Mississippi River also is under last year. This indicates that the lower rail rates have been effective in meeting truck competition. Much of this coarse grain from Iowa and Minnesota moves beyond Minneapolis to the Duluth market for export. On August 20 export rail rates on corn, oats, and soybeans from eastern Nebraska points were lowered to Lake ports, as well as from Missouri River markets to Gulf ports.

Substantial changes have occurred since 1958 in rail rates affecting domestic grain movements. Principal among these has been the lower coarse grain rail rates beyond the river markets and within southern territory. These rates are based on a distance scale and reflect efforts of the Southern lines to meet truck competition. They have disrupted the historic equalization of rates over the river markets, to which I previously referred. Whether or not they have been effective in recouping lost traffic, I do not know, but I am inclined to believe they probably have had little effect. The reason is that much of the grain moving by truck from Midwest origins is handled as back-haul by the truckers who bring fruits and vegetables, poultry, and other commodities north from southern origins. Our 1958 survey indicated some 55 to 60 million bushels, mostly feed grain, moved by truck from the Midwest to Southeastern destinations. Much of this grain is processed into feed at plants in the Southeast and is distributed in bulk trucks to ultimate consumers. The railroads are now providing covered hopper cars for movement of grain products from Midwest markets. This appears to be a most promising way in which the railroads can meet truck and barge competition.

In 1954, the Tennessee River handled less than 400,000 tons of grain. In 1958, over four times as much was moved on the River and volume is approaching 2 million tons this year. Based on the I.C.C. 1-percent Waybill sample, rail grain unloads in Georgia and Alabama from all origins increased from 520,000 tons in 1954 to 830,000 tons in 1958. Tennessee River volume probably considerably exceeds the rail volume to areas bordering the Tennessee River.

What about grain transportation to the Gulf? To Baton Rouge-New Orleans barge grain volume has jumped from a little over 1 million tons in 1954 to about 4 million in 1959. The principal commodities are soybeans, corn, and wheat. Based on the I.C.C. 1-percent Waybill sample, rail grain receipts in Louisiana from all origins increased from about a million tons in 1954 to a little over 2.5 million tons in 1958. Again these comparative figures indicate the importance of barge transportation in the total movement of grain. To Mobile, New Orleans, and Baton Rouge, total truck volume is relatively minor, less than 3 million bushels a year. For the Galveston district, receipts of over 260 million bushels were inspected last year, 208 million bushels arriving by rail, 47 million bushels by truck, and around 5 million bushels by barge. Significant is the increased truck volume which jumped 15 million bushels over 1958. Trucked grain volume is heaviest into the Houston market.

Particularly impressive has been the growth of barge traffic on the Missouri River which presently is commercially navigable as far as Omaha. For the first 9 months of 1960, inspected shipments of grain on the Missouri totaled

over 14 million bushels. In the comparable 1959 period, the total was only a little over 6 million bushels. In brief, the statistics I have quoted show heavy rail movements of grain but reflect also substantial volumes moving by truck and barge.

Now let us look at grain transportation on the St. Lawrence Seaway in 1960. Grain volume through September of this year, moving by the St. Lawrence Seaway to overseas destinations, totaled over 90 million bushels. Total volume in 1960 probably will exceed the 114 million bushels exported in 1959. While export volume from Chicago is down compared to last year, from Duluth-Superior and Toledo volumes exceed those for the comparable period last year. The Atlantic and Pacific ports are moving the greater share of our overall increased grain exports this year, which for the first 9 months aggregated 772 million bushels compared to 720 million for the same period last year. Wheat and soybean exports are up while other grains generally are down.

Now what of the future. There is every indication that barge transportation of grain on the inland waterways will continue to expand. In addition to improved navigation facilities including new locks, deeper channels, and other improvements, the recent Court decision in the "Barge Line" Case, indicates that the railroads in the future will not be able to charge more for the outbound movement of grain from river markets that comes in by barge than for the outbound movement that comes into the market by rail. Grain received by barge would be accorded the same favorable outbound rail rates as now apply to grain received by rail. This may lead to the publication of joint barge rail rates for the through movement of grain from origin to destination.

The Rate Break Rule over the markets, as established in the Western Grain Case, is being challenged and it is possible if this is abandoned or modified we will see more rail rates on a point-to-point basis directly related to distance. The railroads are making strenuous efforts to change the present legislation dealing with the Agricultural Exemption Clause of Part II of the Interstate Commerce Act and the Bulk Exemption Clause of Part III of the Act. While some of these efforts may eventually be successful, either in repealing these provisions or extending them to rail transportation, much time will elapse before such possible changes run the gamut of legislative and judicial procedures.

It is possible that the rails will publish more alternative transit and non-transit rates. Generally, the Western and Northern lines terminate at markets located on the inland waterways and Great Lakes. Their principal interest is in moving grain on their own lines for the greatest possible distance. This means they will continue to take steps essential to meeting the inroads of truck competition. The inherent transportation advantages offered by geographical location probably will be preserved. Where shippers do not require transit, which is a cost to the railroads, it is questionable whether shippers should be required to pay for such service. This is not to say that the existing levels of the non-transit and transit rates into Minneapolis and Duluth are justified. Differentials between rates should reflect differences in carrier costs of providing the services. Greater differentials may constitute unwarranted discrimination against existing plants.

The 1958 survey of grain transportation in the North Central Region showed that most country houses draw grain from a radius of 15 miles or less. The total volume of Government and nongovernment grain shipped per country elevator in 1958 was equivalent to only 5 carloads per week. There are those who feel that the wagon-delivered grain location pattern of country elevators is outdated--that country facilities should be fewer in number, drawing grain by truck over modern highways from broader areas.

There is some evidence, because more and more grain is bypassing historic marketing channels and actual markets have become more geographically dispersed, that the practice of shipping point pricing based on quotations from distant markets, is being weakened. Certainly we cannot regard the locational pattern of country elevators or major markets as static, nor should future grain transportation policy, administrative or legislative, be directed toward maintaining the status quo in this respect.

Barring significant changes in transport regulation, I look for greater dispersion of both feed processing and flour milling facilities. I think, in particular, we will have more feed processing and milling capacity in the southeastern States. Feed processing and flour milling may also be expanded in the East. There is some evidence that comparative charges for the transportation of grain by rail and by water routings into eastern States favor the all-water routes. To some destinations, some limited barge shipments have been made. Unless rail rates are reduced, this movement may expand. The railroads have proposed domestic rate reductions to the East but these proposals embody only minor reductions. It does not appear that these proposals will be very affective in meeting this potential competition.

As for those of us in research and marketing service work, let us keep in mind, that our responsibility is primarily the farmer's welfare--to reduce his costs of marketing and improve marketing efficiency--in the interest of expanding market outlets for agricultural products.

OPPORTUNITIES FOR MARKETING SERVICE PROGRAMS ON GRAIN TRANSPORTATION

L. N. Conyers
Virginia Department of Agriculture

I have divided my subject into four parts: (1) Opportunities for conducting marketing service programs on transportation problems, with emphasis on the importance of transit on grain and related problems, (2) the type of person to be employed to engage in transportation service work, (3) whether to employ a consultant or a full-time experienced employee, and (4) the advantages in developing transportation service work on a regional rather than on a State basis.

Opportunities for Conducting Marketing Service Programs on Transportation Problems

Grain transit provided by rail carriers is an important service and one which possesses many technical aspects. The first recorded transit privilege

was published in 1870 by the Nashville, Chattanooga & St. Louis Railway at Nashville, Tenn., and covered the rebilling and reshipping of grain. Transit privileges applicable to grain are the most extensively used at the present time. It enables many small communities with small grain storage facilities, flour mills, and feed manufacturing plants to be placed on a parity transportation-wise with larger elevators and mills located at some of the larger cities, terminal, and subterminal markets.

The establishment of transit privileges permits the movement of grain from origin or rate-break point to final destination, with a stop at an intermediate point where it is unloaded, stored, processed, and reforwarded. Actually, there are two separate transportation movements involved, but the transportation from origin to final destination is considered to be an interrupted movement. Instead of applying the sum of local freight rates to and from the point at which the stop is made, the through rate from origin to final destination is charged, plus a separate charge in some areas, which is termed a "transit charge." In most regions, grain is permitted three transit stops without charge. In Ex Parte 223, Increased Freight Rates, 1960 (Sub-No. 6), the rail carriers propose to charge 5 cents per 100 pounds for the third transit stop. It was originally published that a charge of 5 cents per 100 pounds would apply for all three stops, but the charge for the first two stops was withdrawn prior to oral argument before the Interstate Commerce Commission on October 18 and 19, 1960. The charge for the third transit stop has since been withdrawn by the carriers.

Grain transit privileges must be authorized by published freight tariffs and apply to carload quantities although there are some transit privileges applicable to less-than-carload quantities on a number of commodities. In many instances where grain reaches the transit point, at which storage, manufacturing or commercial processing privileges are accomplished, the final destination may not be known to the shipper or the carrier. There are a number of reasons for the establishment of transit privileges on grain. They are: (1) Industrial competition, (2) carrier competition, and (3) to facilitate a free movement of traffic.

Outlined below are a few opportunities which exist for a transportation specialist to improve grain marketing programs in the various States.

1. Grain storage and processing facilities. With increased grain production, lack of grain storage and processing facilities, and the shift of industry from New England and Northeastern regions, this appears to be a most fertile field for rendering research service and technical grain transportation assistance. This necessitates the assembling and analyzing of current freight rates, economic, statistical and factual data to determine the public need for and at what point or points they should be located.

2. Overhead one-factor through rates on grain. There is a great deal of discussion at the present time relative to the publication by rail carriers of overhead one-factor through rates on grain from the Midwestern producing area to the Southeastern region. The present proposal does not provide for such overhead rates to apply on grain products. While I understand there is both support for and opposition to such a proposal, industry should be consulted and a research study made to determine if it is in the best interests of the public in the area or areas involved.

3. Differential in rates on grain and grain products. For many years grain products in many areas took a higher rate than those applicable on grain. As an example, the rate from Memphis to Jackson, Miss., on grain on a 100,000-pound car would yield revenue of \$300. On a 40,000-pound car of feed or flour from Memphis to Jackson at the same rate would yield revenue of \$120. The last two named products are much higher priced commodities and the claim possibilities are greater on flour and feed than on grain. If the rate on feed and flour from Memphis to Jackson is compensatory, then the rate on grain, it would seem, is too high.

4. Application of intermediate application. There are many opportunities for reduced transportation charges by applying the intermediate application. While it does not apply to grain, it is an example of what may be done.

5. Flexibility of rates and routes. It has been proven many times that in order for grain marketing to prosper it must have a liberal flexibility of rates and routes. Large grain marketing and processing industries have been built up where such flexibility exists.

6. Use of alternate forms of transportation. Perhaps a study of the possibilities for transportation savings by the use of alternate forms of transportation, such as highway, barge and intracoastal facilities, or a combination of these facilities should be made to determine possibilities for additional savings in grain marketing.

Proper Plant Location

Of the many physical marketing problems faced by grain marketing agencies, none is more formidable than proper locations for the acquiring of new and relocation of grain storage and processing facilities. Selecting a good plant site from a transportation standpoint can put and keep farmer-producers and grain marketing organizations in a better operating position.

A grain facility located off the beaten transportation path may be costly to farmers and their marketing agencies. Resultant higher transportation costs directly or indirectly come out of the pockets of farmers who use the facility. Therefore, it behooves a grain marketing organization caught in a locational squeeze play to consider adjusting its site to try to reduce transportation charges and increase efficiency.

Transit Privileges

Transit privileges cannot be overlooked. A study of additional and expanded transit privileges would no doubt bring out the need for the removal of many inequities and the need for expanded privileges.

Removal of Freight Rate Inequities

An important feature would be to assemble and analyze current freight rate information to determine any inequities which may exist in grain transportation and to file proposals with participating carriers for the removal of any mal-adjustments and the publication of needed schedules to meet competitive conditions which may be found to exist in adjoining or nearby areas.

Demurrage and Detention of Rail Cars

An important matter for grain marketing organizations is the payment of demurrage charges to rail carriers for detention of loaded and empty cars held beyond the "free time" period. Demurrage is a levy imposed by railroads for failure to load or unload rail freight cars within 48 hours after the cars have been placed on plant or teamtrack siding. Many shippers make arrangements for the handling of carload rail freight on the "Average Demurrage Agreement Plan." Under this plan, instead of treating each car as a separate item, all the in-bound cars are considered in one month as a group. Credits obtained on quickly unloaded cars can be applied to the debits occasioned by the slowly unloaded cars.

Type of Person to be Employed to Engage in Transportation Service Work

There are many qualifications which a person engaged in marketing service programs on grain transportation should possess. The most important of these is the ability and willingness to think and to develop new ideas. The various elements of his responsibility should be examined objectively. Employing the services of an inexperienced and unqualified person is like employing an inefficient lawyer, surgeon, sales manager or accountant. An inefficient employee is the most costly and unprofitable.

Technical Knowledge Necessary

It is necessary that the person chosen be able to prepare formal and informal cases for presentation to the Interstate Commerce Commission, State public service commissions, and other regulatory and quasi-regulatory bodies. He should also be able to prepare and present to transportation agencies proposals for adjustments in freight rates and expansion of existing services and privileges on grain. He should also have a broad point of view and know the various phases of grain production and marketing problems.

He should have a knowledge of traffic and transportation work, and should be familiar with the freight rate structure on grain. It is essential that he be familiar with the provisions of the current freight rate and transit schedules on grain in the areas in which he is called upon to work.

Transportation Experience Necessary

It is not absolutely necessary, but highly preferable that the person selected should have had some experience in freight traffic work in both a railroad and a grain marketing or processing organization.

Legal Training Needed

While it is not necessary that the person employed be a lawyer, it is essential that he have knowledge and experience relating to traffic and transportation matters of a legal nature. A thorough knowledge of the Interstate Commerce Act, including both rail and motor carrier provisions, and of related acts is necessary.

A major contribution that could be made would be the forceful presentation of freight rate proposals and transportation cases before common and contract carriers, the Interstate Commerce Commission, State public service commissions, and other regulatory groups.

Research Ability Important

The person selected would have a large field for traffic and transportation research on grain problems. This type of work, with an efficient and aggressive man at the helm, could result in making a major contribution to grain marketing. The objective of this type of research work would be to bring maladjustments and unfavorable freight rates and transit inequities to the attention of participating carriers and to urge their removal.

Alertness Desired

With the grain marketing and entire agricultural economy moving at a rapid pace, the transportation situation of farmers is changing and is expected to materially change in the future. This requires that a grain transportation specialist be a man of alert mind who keeps abreast of all current and proposed changes in both local and national transportation situations. He should keep currently informed by reading and analyzing Interstate Commerce Commission and court opinions, technical periodicals, newspapers, and books dealing with grain traffic and transportation matters.

Whether to Employ A Consultant or A Full-Time Employee

Not knowing how much of a budget is proposed and the many services which a grain marketing specialist is expected to perform, it is somewhat difficult to make a recommendation whether a consultant or full-time employee should be hired. From my 25 years' experience in working with farmers and farm organizations over the country there is definitely a need for either a consultant or full-time employee in the various States. He would have a large field in which to work.

The cost of transporting grain is one of the largest single elements of the total marketing cost which represents the difference between what the farmer-producer receives for it on the farm and what the consumer pays for it. Adequate transportation facilities, prompt, dependable and flexible services at economical costs are necessary to minimize instability of market prices, costs of handling, and to maximize the quantity and enhance the quality of grain and grain products finally reaching the consumer.

The Advantages of Developing A State Transportation Service

Consideration should first be given to carrying on the work on a State basis rather than on a regional basis. It would also be my considered judgment that those States desiring to participate in the program work closely with the agricultural transportation committee. The individual States can do much of the spade work necessary at the grass roots level to make it effective. There is a wide field for rendering helpful assistance to farmers and agricultural marketing agencies.

HOW TO PLAN AND CONDUCT A MARKETING SERVICE PROGRAM IN
IMPROVING GRAIN TRANSPORTATION

Dewey C. Wayne
North Carolina Department of Agriculture

I do not come from what is particularly known as a grain State, although North Carolina is fast developing a surplus of production over consumption. I do not believe any southern State will ever compete in quantity of production with some of the important grain producing States in the Midwest, such as Nebraska, Kansas, and Iowa. I have found that many people in the grain business find themselves fenced in by the multiplicity of circumstances peculiarly applicable to grain transportation.

One of the first complexities is an understanding as to what comprises grain. Actually, grain is the name for cereal grasses and their edible fruits which, whole or ground, supply the main food of man and some domestic animals. In transportation, grain, grain products and related articles including seeds are combined or related. The situation is further complicated by the fact that the country is divided geographically into transportation areas, such as Trunk Line, Central Freight Association, Western Trunk Line, Southern, Transcontinental, and so forth. All of the list combinations and limitations will have some deviation in each of the particular territories.

The United States Department of Agriculture, Agricultural Marketing Service, Grain Division, provides for official grain standards on wheat, corn, barley, oats, rye, grain sorghums, flaxseed, soybeans and mixed grains. It also provides official hay and straw standards for alfalfa, timothy, clover, prairie, johnson grain, wild oats, vetch, lespedeza, soybeans, cowpea, peanut grass and mixed hay. The Association of American Railroads' Accounting Division, provides specific accounting classification for wheat, corn, oats, sorghum grains, barley and rye, rice, hay, soybeans, flaxseed and one specific account for grain not otherwise stated, viz. buckwheat, popcorn, grain not otherwise indexed by name and also spelt. The Crop Reporting Board of the U. S. Department of Agriculture, provides production data on corn, wheat, oats, soybeans, rice, barley, rye, sorghum grains, broom-corn and hay.

Grain transportation is not as simple as the mere transporting of a commodity from one point to another but embodies many types of special privileges, such as stopping of cars for partial loading or unloading, manufacture from the raw product into manufactured items, with time limits for inbound and outbound transportation, as well as such accessorial services as bleaching, cleaning, clipping, drying, grading, inspecting, mixing, sacking, shelling, shucking, storing, transferring and weighing. On rail shipments, there are specific package requirements and provisions for installation of bulkheads, the furnishing and installation of wooden grain doors or lumber for side and indoor barricades, fees for weighing and special lining of cars for specific commodities and even provisions for the shipment of grain products in collapsible weatherproof rubber containers. Export shipments involve varying port charges, rules and regulations with respect to wharfage, handling, and storage. The subject of port relationship would require many words for even a general outline of examination. I am mentioning the commodities involved and the services involved, merely to emphasize the size of the problem before us.

Other phases correlated to grain transportation are the regulations and fees involving warehousing and storage of grain which, of course, embodies elevation, car storage, elevator construction, rail and motor loading facilities, side tracks, car storage yards, train or motor service, quarantine, dryer apparatus for determining temperatures, financial responsibility, the issuance of warehouse receipts and negotiability thereof, in fact almost an endless array of essential services, the charges for which are, to say the least, not inconsequential. A study of the warehousing and storage regulations of the individual States reveals many differences, practically no two States being exactly alike.

Not to be overlooked are the regulations of the U. S. Department of Agriculture, Agricultural Marketing Service, for warehousemen storing grain. These regulations specifically define grain as "All products commonly classed as grain, such as wheat, corn, oats, barley, rye, flaxseed, rough, brown, and milled rice, sunflower seeds, field peas, soybeans, emmer, grain sorghums, and such other products as are ordinarily stored in grain warehouses, subject to the disapproval of the Administrator." The interest of the individual States varies with respect to the production of the specific grains. Estimates of production are easy to obtain for practically any individual State but it is practically impossible to determine State consumption of its own production or importation from other States. There is, no doubt, grain moving in each individual State but statistics and data are lacking to authenticate any accurate determination of traffic flow. This flow may vary from year to year depending on price, market conditions, and Government purchases or assistance. It is almost impractical to estimate even a percentage figure as to home consumption, although it is evident that a very substantial, even an equal amount of grain, is moving via forms of transportation other than rail.

This, of course, brings us into the field of movement of grain via truck, water, or air. The low grade value of the commodity precludes any substantial movement by air. A large portion of the potential water transportation was necessarily involved in the computation of the rail carloadings, in that much of the barge line movement is joint rail and water. I know of no figures which would indicate the movement of trucks being operated by private owners, although there are a substantial number of regular haulers of this type. It is commonly known and must be recognized that a substantial portion of grain transportation is being performed by exempt motor haulers.

Practically all grains are exempt interstate under Section 203 d(6) of the Interstate Commerce Act and the specific legislation enacted under Senate Bill 3778 in 1958. No survey or improvement can possibly be effected in grain transportation without taking into consideration the large volume of grain moving under rate exemption. It is strange how substantial this movement is in practically all States and between many States with so little data available as to the motor operators, the shippers' volume of movement or prices paid for the involved transportation. There are agricultural haulers who charge set rates between specific points and there are contract carriers who vary prices, as well as some haulers who utilize the transportation of grain for the procurement for what is known as mere gasoline reimbursement. Attempts have been made to make studies and procure data in this regard but, to my knowledge, nothing substantial has ever resulted from these attempts. I do not believe

there is anyone in this room who can authoritatively announce what is being paid for exempt transportation hauling, either within his State, or to or from points beyond his State. I think this is one of the first problems to be encountered, and frankly, I cannot offer a definite program for solving it. This has been discussed in our Southern State Departments of Agriculture Transportation Committee and the conclusion necessarily reached is that sufficient money and personnel is not available to conduct the type road block study that would be necessary. I do think this is a matter in which the U. S. Department of Agriculture will eventually have to assist.

There are basic considerations in any approach to analyze, adjust, or revise regulated rail or motor rates, also to determine private carrier costs and to ascertain any proportion of saving through the use of exempt haulage, as against regulated or private transportation. I will mention a few of these necessary considerations. One of these is the weight and density of the commodity, possible packaging, and minimum weights to be loaded in either car or truck. The heavier the density, the higher the loading requirement will be and the lower the rate. Bulkiness reduces the weight and necessarily increases the rate.

A second consideration in any transportation analysis or study must necessarily consider the average length of haul. The annual reports of the railroads, filed with each of the regulatory commissions, reflect the origin and destination carloadings of all grain traffic. It is possible with a certain amount of research to ascertain the average length of haul for each individual State, as well as for interstate transportation.

From a practical standpoint, it is essential at least to consider the percentage of destination price involved as transportation cost. These figures are released at intervals after rather intricate waybill studies by the Interstate Commerce Commission. What I have attempted to bring forth is that a collective approach to an improvement in grain transportation is not simple. The problem cannot be entirely approached from an individual State standpoint but must be from a regional grouping and a national program is almost impossible. In the southern States, we began an important grain rate case over 5 years ago seeking to adjust the rates within, to, and from the South. Money was obtained through the Southern Governors Conference and, I am frank to say, a considerable amount of money has been spent. The expenditure has been worthwhile, in that we have effected reductions in grain rates of between 20 and 25 percent. We are still working on the inter-regional rates between Southwestern, Western and Western Trunk Line. Some progress is being made but the case is not yet concluded. I might say that, in the progress of this case, we have had hearings in Minneapolis, Kansas City, Dallas, Washington, Atlanta, and Palm Beach.

There are, of course, other factors than rates and charges in grain transportation, such as the adaption of specialized equipment. This is a particular field and, while transportation is involved, I think this particular subject is better for grain experts who deal with temperature, climatic and moisture characteristics. There is a growing tendency to outline specialized equipment for grain and for its products. There are special trailers now utilized for the handling of starch in bulk, for the handling of malt, and for delivery of malt to brewers and molasses to feed mills.

It has been my experience, acting as a transportation consultant for a State department of agriculture, that I am sometimes confused as to exactly what position to take where there is a conflict between grain producing areas in your State, in competitive cooperatives, competitive ports and competitive flour and feed mills. I have found that there are at times a conflict of interests between the so-called large chain feed people and the local mills. We even have a mill in North Carolina which still grinds corn meal by old-fashioned water power and seems to sell its product at a premium because of this advertising and circumstances. You can get yourself into quite a bit of trouble when you try to improve grain transportation, as well as receive various plaudits. My concluding recommendation is that each individual State has its individual problems and that no one can specifically outline a full and complete definite program.

ACTIVITIES OF GREAT PLAINS WHEAT, INC.

Leslie F. Sheffield
Great Plains Wheat, Inc.

Great Plains Wheat, Inc., is a relatively new organization, since it first came into being on January 1, 1959. On May 1 of that year the Association assumed the administration and financing of the regional wheat market development program, including foreign activities, for the States of Kansas, Nebraska, and Colorado. Previously the foreign marketing activities had been administered by the Nebraska Wheat Growers Association under a contracting arrangement with the State wheat commissions in Nebraska, Kansas, and Colorado.

Moisture supplies and weather have been more favorable to Great Plains wheat farmers in recent years as witnessed by the 1960 wheat crop of 1,368,000,000 bushels, of which 911,307,000 bushels or 2/3 was produced in the 10 Great Plains States. These 10 Great Plains States accounted for 713.8 million bushels of hard winter wheat which is 64 percent of the production of all winter wheat, both hard and soft; 162.6 million bushels or 75 percent of the production of spring wheat other than durum; and 34.7 million bushels or 98 percent of all durum wheat produced in the United States. From these figures it is obvious that wheat is the number one crop and the greatest single "common denominator" of the Great Plains region.

Despite the fact that wheat production has been near or above normal in the Great Plains States in recent years; farmers in this region have been faced with a very serious cost-price squeeze. While acreage allotments have cut back wheat acreage by a full third, farmers through increased efficiency, the use of better varieties, and other technology have produced more wheat on 55 million acres (the national minimum under existing legislation) than they formerly produced on 75 to 80 million acres before allotments.

Farm leaders in the region long have recognized that eventually they must do one of two things: (1) Curtail production even further to bring production more nearly in line with demand; or (2) develop additional market outlets to absorb their production. Wheat growers in several States decided that the latter course held more promise so they began to plug for "self-help" type programs as early as the late 1940's.

Outside the Great Plains, Oregon was the first State to secure a State wheat commission. Nebraska followed in 1955, Kansas in 1957, Colorado and Washington in 1958, and Idaho and North Dakota in 1959. While the legislation and approach varied somewhat from State to State, all provide for a small levy, ranging from 2 to 5 mills per bushel to be paid by the grower on the first sale of his wheat. Two of the States, Colorado and Washington, used the marketing order approach whereby a referendum was held to secure the growers' approval. In the other States, enabling legislation passed by the State legislatures and signed by the governors brought State wheat commissions into being without referendums. That this legislation meets with most farmers' approval is borne out by the fact that in those States where farmers can obtain refunds, these refunds have amounted to less than 1 percent of total collections.

The funds and activities conducted by the various State wheat commissions are under the management of boards consisting of wheat growers either appointed or elected for this purpose. Early in their existence, the growers in the various States recognized that there was need for close cooperation since wheat is marketed by class and grade. Thus it would be futile to promote wheat from one State over that of an adjoining State in either domestic or foreign markets since once wheat moves in commercial channels it is impossible to determine in which State it was produced. Also, wheat growers recognized that the job to be done, if their efforts were to achieve any measure of success, would require the full cooperation and financial participation of all major wheat States.

While there is some variation in the activities which can be conducted under the legislation in the States with commissions, all provide for marketing activities. Some States have spent considerable funds in research activities on wheat production, marketing, and utilization projects; while others have concentrated on market development, both domestic and foreign.

Negotiations were begun in 1957 aimed at the formation of a regional organization to undertake the activities which were of mutual interest to States in the Great Plains. Late in 1958 plans were finalized and the Great Plains Wheat Market Development Association, Inc., (since shortened to Great Plains Wheat, Inc.) came into being January 1, 1959. Clifford R. Hope, who served in Congress for 30 years and was on the House Agricultural Committee throughout that time, was elected president. The main office was located in Garden City, Kans., and on May 1, 1959, when foreign marketing activities were taken over by the association, responsibility was assumed for the Washington office, a European office located at Rotterdam, the Netherlands, and a South American office at Lima, Peru. On July 1, 1960, the North Dakota State Wheat Commission joined Great Plains Wheat thus broadening the scope of the program to include hard red spring wheat and durum wheat.

Foreign Marketing

In establishing the budget and program for Great Plains Wheat, Inc., the officers and board of directors recognized the importance of increasing foreign market outlets, and 73 percent of the total funds were allocated for foreign marketing. Another factor in this decision was the availability of foreign currencies for market development activities under the provisions of Public Law 480 passed in 1954. This law made it possible for the U. S. Government

to enter into agreements with foreign countries short of dollar exchange to accept their currency in return for purchases of surplus U. S. agricultural commodities. A small portion, originally one-half percent, of the funds of these sales was allocated for the development of markets abroad for U. S. agricultural commodities. These funds are administered by the Foreign Agricultural Service, USDA, and commodity cooperators can enter into contract with FAS and receive foreign currencies for specified activities provided the cooperator can provide sufficient offsetting dollar funds.

On November 1, 1959 a Caribbean area representative was appointed and he is stationed in Washington, D. C.

Under this cooperative agreement with FAS, Great Plains Wheat now is engaged or is cooperating in activities and programs in every continent of the globe with the exception of the one down under, Australia, which is a competing wheat exporting nation. The program in Asia involves a cooperative agreement between Western Wheat Associates, Inc., a similar regional wheat grower organization in the Pacific Northwest, and Great Plains Wheat, Inc. They have administrative responsibility but policy decisions are handled through a coordinating committee which meets quarterly.

Offices in Asia are located in Tokyo, Japan, serving Japan, Korea, and the Philippines; New Delhi, India, serving India; and Karachi, Pakistan, serving both West and East Pakistan. At present, a man stationed at the New Delhi office is in charge of market development activities in Southeast Asia covering Ceylon, Burma, Thailand, and Indonesia.

I shall make no attempt here to go into any detail concerning the many programs and activities conducted through the various offices aimed at foreign market development. Activities are many and varied and can be grouped in the following broad categories:

1. Liaison with FAS, AMS, and CSS of USDA relative to foreign markets and U. S. wheat export policies.
2. Survey of wheat and flour market potentials in importing countries.
3. Bringing of teams of key government and industry representatives to the U. S. to observe the U. S. wheat industry, including exporting procedures and facilities.
4. Maintaining contact with government and industry representatives in importing nations and servicing their requests for information and assistance.
5. Market development activities in project countries, including: Testing of U. S. wheat and/or flour; technical assistance in buying, handling, milling, and baking; and nutrition education for consumers.
6. Participation in international trade fairs to demonstrate wheat and wheat food products.

7. Surveys of competing wheat export nations to determine our relative competitive position.
8. Cooperation with U. S. grain trade and exporting firms in trying to make U. S. wheat more competitive.

At this point, I should stress the point that Great Plains Wheat, Inc., does not own stocks of wheat, and none of our representatives go out with order books and try to make final sales. We are not and do not ever plan to engage in the physical handling of wheat on a commercial basis. Actual sales and the physical movement of wheat are handled by the firms engaged in that business. Our primary interest is to promote U. S. wheat and flour and thereby add to the total markets for it. U. S. wheat exports for the 1960-61 fiscal year are now estimated at 550 million bushels, 43 million above last year. There have been many cases where we feel that our association has been instrumental in maintaining present wheat sales or in developing additional export outlets that otherwise would have been lost to the United States. I shall not take time to enumerate these here but we will be glad to provide further details on request.

Domestic Marketing

While total consumption of wheat foods in the United States has remained almost constant for several decades, there has been almost a steady decline in the per capita consumption of wheat. The increasing population has offset the decline in per capita consumption so that total food use of wheat in the U. S. has hovered around 485-495 million bushels for several years.

Several factors are involved in the decline in per capita consumption of wheat, including:

1. As income rises, wheat consumption per capita falls.
2. The inelasticity of the human stomach.
3. The availability of other foods, especially meats, vegetables, and fruits.
4. Increasing popularity of convenience foods and eating out.
5. The relatively unfavorable "image" of wheat foods.

Other factors undoubtedly could be added but the net result has been that wheat foods have not kept pace in the total market in relation to other foods as the United States has developed and grown in population.

In planning the 1960-61 fiscal year budget for Great Plains Wheat, some changes were made in the administration and financing of regional activities for domestic programs. Under this arrangement the Kansas Wheat Commission and the North Dakota Wheat Commission are charged with the responsibility for financing and administering domestic marketing programs outside the four member States. Each State with a wheat commission will continue to finance and direct nutrition education programs within that State. In the same agreement, the Nebraska Wheat Commission will direct the regional wheat utilization program for wheat growers while transportation activities are handled by the Colorado Wheat Administrative Committee. Advisory committees, consisting of two growers from each of the four member States, are set up to provide correlation in the

regional programs in these three areas of domestic marketing, utilization, and transportation.

For the 1960-61 fiscal year, a total of \$89,600 has been budgeted by Kansas and North Dakota for domestic marketing programs. This, coupled with domestic programs in each of the four States, will mean total expenditures in this area by wheat growers of approximately \$160,000 to \$170,000. This, I hasten to add, wheat growers recognize as only a fraction of the funds which would be necessary to carry on a successful nationwide nutrition education and promotional campaign. However, this does mean \$160,000 or so more than was available for these programs before the wheat growers were organized. By cooperating closely with the millers and bakers in their educational and promotional efforts it is our sincere hope that some good will result from these programs.

Utilization

Utilization, or the finding of new industrial uses for wheat, is a subject which has created a lot of interest and has been widely talked about. Unfortunately, there has been far more talk than action as far as wheat is concerned and here our wheat growers organizations also fall into that category.

The USDA Regional Utilization Laboratories at Peoria, Ill., and Albany, Calif., are both working on wheat utilization studies. Some work is underway on the study of wheat gluten at Midwest Research Institute in Kansas City under a project contracted through efforts of the Nebraska Wheat Commission. Only long-time research programs involving both basic and applied research will develop economic outlets for surplus grains and certainly this does not hold promise of providing an overnight answer to our problems of surplus grains.

Transportation

Transportation costs are vital to the farmer since the price he receives for his produce (wheat included) is determined by the price at the marketplace or terminal less the freight cost of moving his produce to the market. Let me make it clear that I do not consider myself as an "expert" or even qualified to speak on transportation.

However, a few facts in the matter are self-evident. Grain transportation costs by rail have increased over 100 percent of what they were in 1947. Perhaps someone from a railroad could aptly reply "what hasn't increased by nearly that much or more since 1947?" My answer would be the price of wheat and the amount a farmer receives for the wheat required to make a loaf of bread, which is actually less than it was following World War II.

What has hurt the Great Plains States most in transportation is that the railroads have increased their freight rates on a straight percentage basis thus penalizing the area of longest haul. Also, while barge and truck movements of grain have increased enormously, according to studies conducted by the U. S. Department of Agriculture, unfortunately, the Great Plains is a semiarid region and we are not blessed with large rivers which can float barges with 9- to 12-foot drafts such as you find farther east and in the Pacific Northwest.

Truck movement of grain has increased in our region but because of the length of haul and the difficulty of obtaining backhauls, the costs are higher than from many other producing regions. With grain traded on an eighth to a fourth cent per bushel for both domestic and export sales, it is not difficult to understand why we have so many white concrete monuments full of grain stranded in our Great Plains region.

Wheat growers have become increasingly more active in transportation through the efforts of the Wheat Producers Transportation Committee in Denver, a wheat grower organization. This group was successful recently in obtaining a reduced wheat export rate to the west coast from \$0.98½ cwt. to \$0.81 cwt. although they had requested a \$0.70 cwt. rate originally. Purpose of the efforts to secure a lower rate was to open up markets for Great Plains hard wheat in the Far East, particularly Japan which buys approximately 50 million bushels of hard wheat annually.

Other efforts in transportation by wheat growers have included participation in various rate proposals including opposition to rate increases and the reduction of free time on rail cars at the ports, to mention just a few.

Public Relations

The sixth field of endeavor by Great Plains Wheat, Inc. is in the area of public relations, and while it is last in this presentation it is by no means less important. With all of the publicity given to the so-called "farm mess" in U. S. publications and in the recent election campaigns, I don't have to tell you that the farmers'--and more specifically the wheat growers'--public relations image in the eye of the public leaves much to be desired.

Charles H. Burch is our Director of Information and he has been working diligently to get information about the wheat grower and his problems well publicized, not only in the Great Plains area, but also on a national level. He has established contacts with many regional and national publications and in addition edits a monthly newsletter, "The Great Plainsman." He also handles all news releases and is doing an outstanding job for the Association.

However, the public relations "image" of the farmer and the wheat grower is not a simple matter, not one which can be changed from unfavorable to favorable overnight. There are myriad factors involved, and many of these are outside the individual farmer's control as well as outside collective control even with active organizations working on them.

In summary, our wheat grower program is not designed to be a "cure-all" for all the wheat growers' problems. It simply is evidence of the strong desire on the part of wheat growers through a "self-help" approach to try to find some of the solutions to a few of the problems confronting growers in the Great Plains region. One newspaper wag aptly dubbed the program "Operation Bootstrap."

WHAT THE AMERICAN BAKING INSTITUTE IS DOING TO
PROMOTE WHEAT PRODUCTS

Dudley McFadden
American Bakers Association

Before relating to you our activities, which are aimed at building greater volume of wheat flour products produced by commercial bakers, I'd like first to position the industry in your minds.

There are 21,000 baking operations in the United States. Of these 6,000 are wholesale bakers who produce their products in a central plant and sell through multiple retail outlets, bakers who distribute directly to homes, and chain grocery groups producing their own private labels. These are all classed as wholesale operators in our terminology. The balance of the 21,000 are retail bakers, who bake in the rear of their shops and sell from the front. The wholesale class of bakers handles approximately 75 percent of the total business of the industry.

Again in our terminology, we do not class biscuit and cracker operators under our listing of bakers. They are separate entities.

The baking industry as a whole, including biscuit and cracker, now is using 170 million hundredweights of flour annually, about 80 percent of all the flour consumed in our Nation. This requires 400 million bushels of wheat. The baker also uses 340 million pounds of nonfat dry milk; 1.2 billion pounds of shortening; more than 2 billion pounds of sugar; tons of fruits and nuts; huge quantities of eggs; and a variety of other items.

To impress you with the size of our industry, let me point out that baker employees total 320 million, more than any other food processing industry; bakers use 100,000 motor vehicles, again more than any other segment of the food processing industry. We are the largest commercial users of sugar, waxed paper, cellophane, and certain other products. The last estimate of the retail value of all bakery foods which I have seen was 6.5 billion dollars.

Membership in the American Bakers Association is restricted to bakers. Primarily that membership is made up of wholesale bakers, home service bakers, and multiple unit retail bakers.

Any baker joining the ABA automatically becomes a member of the American Institute of Baking, the research and educational center of the national industry. However, unlike ABA, the Institute has members from our allied industries, flour millers, yeast companies, equipment suppliers, meat packers, paper companies, and so on.

The Bakers of America Program is the title given to the promotional division of the Association. This is the department with which I am primarily concerned. Our funds are collected wholly apart from the membership dues paid to the Association. Currently our budget runs in excess of \$700,000 annually.

Our work is divided into two broad categories--a general public relations and promotional program conducted directly from my office and an educational campaign directed by a staff at the American Institute of Baking.

Obviously one of our responsibilities is to let the consumer know about the baking industry--its size, its importance economically, its methods of operation, its profit structure, and its products. Naturally the use of news stories is the most important part of this activity. Every release from our office has actual news or a good feature angle in it which, in our opinion, has value to the publication and to the consumer.

Official Government bodies frequently are sources for material, such as the report from the Agricultural Marketing Service which studied marketing margins of white bread. And a mat which shows baker profit at about 3 percent after taxes, or less than a half cent per loaf, was widely used.

Seven years ago we started producing 4 1/2-minute black and white films for use on daytime homemaker television shows. We had 11 of these on a variety of subjects and with each film reached viewers of more than 200 TV stations. More recently, most stations have dropped their women's departments, using syndicated film instead. So we have quit pushing these films.

In 1957, we produced a motion picture under the title "Your Daily Bread." It is 12-1/2 minutes long, 16 mm, in sound, technicolor. Seven hundred prints have been produced to date. Copies are permanently on file in 165 audio-visual centers for circulation to schools in specific areas. Three hundred and five prints have been purchased by our members and allied industries for use in their club, school, and other programs. The film has appeared on a number of television stations, and our office prints have been loaned to several hundred grade schools, junior and senior high schools, and colleges. Audience obviously runs into millions.

The film shows the step by step process of breadmaking, tells bread's nutrition story, shows some of the many varieties of bread available in every market.

Into distribution this year went another color movie, "The Color of Health." Produced with the advice and counsel of a special committee of the AAHPER, the film relates the value of physical education and the vital importance of the complete diet in good physical and mental health. It has been requested and placed in more than 130 audio-visual centers to date and shown in several hundred junior high schools. Bookings are heavy through May of next year. We have made 500 prints, will need to print 200 or 300 more next year.

Let me emphasize that we do not just sell bread--we sell bread as a part of the complete diet, the Basic Four promulgated by USDA. We sell bread as having a rightful place along with milk, meat, and fruits and vegetables. I am sure that is why our material has proved so popular with educators.

Much time is spent on three spot promotions, the first of which is outdoor eating. We set up July as National Picnic Month 8 years ago, aiming at getting others to coordinate their outdoor eating campaign with ours, to focus

attention simultaneously on all aspects of the outdoor meal. Actually, the outdoor eating drive now begins with Memorial Day and extends through Labor Day.

The amount of advertising on outdoor eating which has been stimulated amazes even myself. Think of the things which can go along on a picnic--hundreds of food items, plus paper plates, cups, napkins and other paper products; plastics, grills and other adjuncts for home barbecuing and broiling; sporting goods, clothing, photographic equipment and supplies and so on and so on. Add soft drinks, beer and tea and coffee and you come up with sizable support.

This was the coordinating job which we picked up with a certain amount of success. We then created and create every year, special materials for use by newspapers. This layout goes to every daily and to 5,000 top weeklies. Copy is supplied not only by our staff but by a long list of cooperators, who have a keen interest in outdoor meals. We do not permit brand names in the copy. Papers wouldn't use it even if we did.

Newspapers come out in July with up to 20 pages of special outdoor eating sections, loaded with advertising of course, and using our editorial material. Some papers merely run a page or so every week over the summer months.

Grocers have jumped on the picnic idea. This is the only truly storewide promotion they can have any year. There is something in every department which can go along on a picnic. These posters are used by our members for grocery display.

Next is our Good Breakfast drive. The Cereal Institute set up September as better breakfast month, so we extend their actions by establishing February and March as good breakfast months. This is primarily a publicity promotion, mats, feature stories and posters distributed either direct to media or to supermarkets, restaurants, and schools in the case of the posters.

The third promotion is on desserts, the traditional desserts mostly. Fruit cake, pumpkin pie, mince pie and donuts get attention in October through December, with feature stories, recipes reaching consumer media, and posters going to groceries and restaurants. We sell a lot of these

But now I want to turn attention to our most important activity, from the Consumer Service Department. We have a good sized staff, including the director, an expert in the field of education, a nutritionist, food page publicists, a test kitchen and 9 field nutritionists. Each of these 9 women is assigned to specific areas of the Nation. They call on educators in a variety of fields; they work with other nutritionists, home economists, and dietitians.

They spend much time with school lunch directors, giving food demonstrations. They help nurses, public health personnel in their work. They contact doctors, appear on television programs, are interviewed on radio and visit with food editors. Over a 5-year span of work recently tabulated they made 24,050 contacts with key people; appeared before 2,245 audiences to give their lectures and demonstrations, including appearance on television and radio shows.

This phase of our work, along with some other activities came into being for a very simple reason--there was, and in certain areas there still is--a complete misconception of the value of enriched bread in the diet. The only way to correct this false impression for future benefit of the industry was to get down to the younger people, to educate them.

To aid our field staff, we produce educational materials for school use. We supply teachers with these check charts, to analyze the diets of their students. We offer a mobile which can be assembled by the students to build a balanced diet and if you get the wrong things on this mobile or omit one of the basic foods, it will not hang in proper balance.

Naturally we are concerned with the dieting craze and the peculiar idea generated back in grandma's day that bread and potatoes are fattening. No food is fattening simply because it is a type of food--it's all a matter of total caloric intake. The fact that a slice of bread averages 65 calories is a point we drive home repeatedly; and that its nutritional contribution far outweighs the caloric content.

In that 5-year period of our activities we studied, our food page articles had appeared in media having a total circulation of 1,791,817,671--to give you an exact figure. This is based on returns actually received. Many articles obviously were used but we did not get copies.

The wheat grower campaign is tied closely with our activities. The growers are purchasing our educational materials and distributing them to schools, doctors and others--extending our budget to a very good degree. In addition, the millers obviously have cooperated and are working more closely with us now than ever before.

In addition, the Wheat Flour Institute each year stages the mammoth August is Sandwich Month promotion, which you no doubt all have run into. It was set up coincidentally with our picnic drive, to extend our efforts and to further stimulate summer consumption of sandwiches. With the National Restaurant Association cooperating, this brings forth each year hundreds of sandwich ideas. The top ten sandwiches developed by restaurant operators are widely publicized. There is not the slightest question in our minds that this sandwich promotion has been a very important factor in building demand for bread and rolls and other food products. We work very closely with the Wheat Flour Institute in a variety of promotional activities. You have, therefore, a combination of effort of the wheat growers the flour miller and the baker, aimed at building a greater understanding of wheat products and a greater consumption of those products.

Supplementing our work in a major way is the cooperation of others--the yeast people, the cellophane and waxed paper organizations and many more not directly affiliated with our industry. They assist in helping distribute material to consumers, to schools and elsewhere. They swing behind our promotional work, through their advertising and in the direct contact of their sales personnel with baking industry members.

I suppose you are interested in results, as we are. You people are part of or close to promotional work of one kind or another. You are aware, therefore, that you are dealing with somewhat of an intangible. Rarely can you point to any specific activity and state that this and this alone resulted in this exact percentage of increase in sales. There are always contributing factors.

Therefore it was pleasing to me particularly, and to our industry generally, to see the Census of Manufacturers report for 1958 compared with 1954, covering bakery foods. It was in this exact period when our educational campaign gained full momentum--our picnic, breakfast and dessert promotions reached to peaks; our field staff of nutritionists came into being and started their contact work; our literature distribution reached to 3 million pieces annually; our medical advertising was underway--when in short, all our efforts hit high gear.

And the Census report revealed these interesting facts and figures: Total consumption of bread and other yeast-raised products in 1958 was 13.7 percent greater than in 1954. Consumption of white bread alone was up 10.6 percent. Consumption of bread-type rolls was up 26 percent. Consumption of dark breads was down.

And the population increase between 1954 and 1958 was only 7.2 percent. This meant that per capita consumption of bread from wholesale bakers--this report did not include retail or restaurant figures--moved from 80 pounds to 85 pounds, a gain in per capita consumption of 6.3 percent.

Parenthetically let me note here that we do not try to cut down consumption of dark breads--whole wheat, rye, and so forth. Our members all make such breads, but consumers demand very little of these. The significant part of the figures is that it appears we have made progress in our drive to let people know that there is very little difference nutritionally between enriched white bread and whole wheat bread.

It is the conviction of those of us responsible for the direction of our national campaign that we have evidence our educational program is working, broadening the market for bakery foods and thus broadening the market for a goodly number of farm products.

CONCLUSIONS AND RECOMMENDATIONS

of Work Group on Grain

The group recommends:

1. That marketing specialists working on the AMA program maintain closer liaison with personnel of Regional Utilization Laboratories and the AMS of USDA on market development research pertaining to soybeans and other grain products, as a means of assisting grain marketing firms by the dissemination of this type of information and by assessing marketing opportunities for new cereal grain products. Marketing specialists are encouraged to work closely with the

Great Plains Wheat Incorporated, Wheat Commissions, American Soybean Association, the Soybean Council, and similar public or private agencies in solving grain marketing problems.

2. More coordination in promotional efforts between State departments of agriculture, other State and Federal agencies, industry groups on grain and grain products including reciprocal commodity promotion programs. An example is the cooperative promotional effort of the Kansas State Board of Agriculture with the Wheat Commissions, Millers and Bakers Associations that tie in with other food commodity promotions on meat, poultry and eggs, dairy, fruits and vegetables, and other food items.

3. A presentation similar to that made to the grain work group session by representatives of the American Bakers Association and Great Plains Wheat Incorporation should be included as a general session of the 1961 National Marketing Service Workshop. This presentation would stress cooperation by producers, millers, and bakers in promotion work.

4. That consideration be given to obtaining the following statistical information: (a) To obtain data on the marketing situation for soybeans in domestic and foreign markets and that soybeans be added to the national situation series issued by the Agricultural Economics Division, AMS, USDA, and (b) to obtain statistics on the movement of wheat and flour as a means of assessing the potential impact of new milling and baking developments. In addition, marketing specialists should endeavor to take advantage of all sources, public or private, that are supplying current and pertinent information relating to the domestic and foreign soybean marketing situation in order to provide producers, country dealers, and other marketing agencies with up-to-date information.

5. That consideration be given to the development of objective statistical methods of estimating the production of soybeans and grains as well as any other methods that will improve crop estimates. A general feeling exists among producers, exporters, processors, and other handlers that the present crop reporting system of estimates does not meet their needs.

6. That by maintaining a close working relationship with State chemists and staff members, marketing specialists could render a valuable service to grain firms and thus keep the grain trade posted on new chemicals being used in connection with the storage of grain and to caution grain handlers on such problems as the use of chemicals that might have a detrimental effect on grain used for processing or feed products.

7. That marketing specialists focus attention on controlling objectionable weeds and seeds in soybeans, corn, and other grains in marketing channels. The emphasis of this work should be placed on controls in the fields to eliminate such objectionable weeds and seeds as crotalaria, jimson and morning glory in soybean, corn, and other grain shipments to market.

8. That marketing specialists work with producers, handlers, processors, exporters, and other buyers in obtaining uniform interpretation of Federal grade standards and buying practices.

9. That State departments provide a continuing service to soybean handlers and processors in the improvement of handling facilities, the use of modern equipment and assistance in strengthening management practices.

10. The use of objective measures of quality in the buying of soybeans and other grains. It may be necessary to explore the possibilities on a pilot basis to determine the practicality for commercial use of such procedures as oil content tests as a factor in establishing price.

11. That the Extension Service and State department personnel should make every effort to coordinate their plans, objectives, and execution of programs. Cooperation should, where possible, be expanded on a regional basis on such problems as transportation trends and in assisting firms in remodeling and locating grain facilities.

12. That grain marketing specialists utilize services of other Federal and State agencies, and industry personnel who specialize in transportation problems in order to determine the course of action with respect to proposed rate changes.

13. That marketing specialists can serve a useful function by serving as liaison between handlers and the Association of American Railroads in preplanning rail traffic requirements and in furthering the design of adequate rail cars to handle grain.

14. That appropriate agencies should encourage the development and dissemination of correct information on freight rate structures and technological changes in transportation equipment and transportation methods and the availability of railroad cars and permit requirements.

15. That the possibilities of using linear programming technique be explored as a means of determining best possible location of grain and grain products facilities using such information as rail, water and truck rates, production, existing facilities, and other factors in the analysis.

16. That States that do not have a transportation program investigate the possibility of having full-time transportation specialists or part-time consultants survey transportation problems.

17. That the possibilities of establishing food and feed processing plants as a means of expanding market outlets for grain be explored.

18. That research be encouraged to obtain needed information on exempt carrier hauling rates for grain and other agricultural products. The USDA will have to assist in this proposed study in order to get this complicated job done.

19. That regional training schools for USDA and State personnel be conducted with representatives of moisture meter manufacturers to study correct calibration of all moisture meters in order that voluntary calibration of all moisture meters may be accomplished. Also training schools in conjunction with grain grading schools for operators of moisture meters be organized by State personnel.

Work Group Sessions

IMPROVING METHODS OF MAKING LIVESTOCK ESTIMATES

Robert H. Moats, AMS, U. S. Department of Agriculture

The livestock estimates prepared and published by the Crop Reporting Board, the 43 State statisticians' offices, and cooperating State agencies provide extensive and detailed measures of the livestock industry in the United States. The purpose of this statistical program is to provide anyone who is interested with accurate, timely, unbiased facts for use in appraising the situation and in making current and long-range plans. This program includes, by States, current information on livestock numbers, births and death losses, marketings, slaughter, prices and value of production, wool production, milk production, farrowing intentions, and related information. In many States, the basic Federal program is augmented substantially by a cooperative program with the State department of agriculture, the agricultural college, or other State agency. In these States, reports are geared to meet local needs by including county statistics, or other detailed data not included in the national reports.

A complex society, such as ours, cannot operate without good statistical information. Improving and expanding the information reduces waste motion and reduces costs or losses that the farmer or the consumer must pay. Furthermore, farmers and the people dealing with farmers are becoming more and more conscious of the value of good statistical tools. They are learning how to use these tools more effectively, and they are demanding more comprehensive, and more precise information.

During recent years there has been a sharp upsurge in interest in marketing and in marketing research. This interest has pointed up the need for more detailed data on the livestock industry, for more frequent reports, and for statistical series that are not now available.

Trends that are underway in the livestock industry, such as the decline in the number of producers and the increasing commercialization, are placing a heavy burden on the estimating machinery. To keep up with these changes, and to meet the ever-increasing need for more comprehensive and more precise statistical information, we must continue to modify, strengthen, and improve the program.

The statistical data included in the reports we are discussing, are, for the most part, estimates developed from samples. The current pig crop, calf crop, lamb crop, January inventory and wool production estimates are based on reports from 150,000 to 170,000 farmers and ranchers representing all parts of the United States. The estimates are later reviewed and revised as needed on the basis of livestock slaughter data, records of livestock marketings, wool applications under the incentive program, assessments, annual State Farm Census data in a number of States, and every 5 years on data from the Census of Agriculture. Past relationships between data from the sample of producers and

final revised estimates are carefully analyzed in interpreting the sample for the current estimates. There is a close tie-in among all these series. If the inventory or birth estimates are too low, the supply will not be large enough to cover the number slaughtered. Some component series are based on complete or nearly complete coverage, and these components aid in making accurate estimates for the other components.

The commercial slaughter estimates include slaughter in Federally-inspected plants, plus slaughter in non-Federally-inspected plants. The Federally-inspected slaughter, which accounts for approximately 80 percent of the total, is based on actual records from the Meat Inspection Division. The non-Federally-inspected slaughter is, in most States, estimated on the basis of reports voluntarily supplied by these plants. Reports are received from most of the larger plants and from a substantial proportion of the smaller plants. In a number of States there is a State or local inspection of the non-Federally-inspected slaughter plants. In some States, data are obtained on number of head and live weight slaughtered in connection with this inspection. These data are used in preparing our estimates whenever they are available. Thus the estimated component of the commercial slaughter data is a relatively small part of the total. For other reports, such as cattle and sheep on feed, checks are made at least once each year in many States to determine the name and location of all large operations. These large operations are then covered completely or sampled at a very heavy rate in connection with each quarterly or monthly report. The "farm" feeders are sampled at a much lower rate.

There are two ways that the livestock estimating program can be improved so as to better serve the agricultural interests in this country. One is through expanding the reports, i.e., more frequent reporting, and including data for more States. The other is through improving the accuracy of the reports now being prepared. These two methods work hand in hand and are not independent. When funds are appropriated to start a new report or to add States to a report, we modify the technical procedures to do the best job possible with the money that was made available.

There are a number of examples in recent years of improvements in the livestock statistical program that have been made by the first method mentioned, that is, expanding the reports. Two good examples are the quarterly cattle on feed and the quarterly pig crop reports. Incidentally, both of these reports were started as Agricultural Marketing Act projects. The cattle on feed reports were started in 3 States using AMA funds obtained at the national level. The quarterly pig crop reports are continuing data projects financed by State-Federal matched funds in each of the States concerned. The quarterly cattle on feed report has now been taken over entirely under the regular operating funds of the Division. This report, which started with only 3 States in 1948, has been expanded periodically until it now covers 26 States. (In two of these States, California and Arizona, a report is now issued monthly.) This quarterly report shows for each State, the number on feed at the first of the quarter by weight, sex, and length of time on feed, classes, the number placed on feed, the number marketed from feed lots during the quarter just ended, and marketing intentions for the following quarter.

The quarterly pig crop reports are now issued in 10 leading hog producing States. These reports show, by States, the number of hogs on farms by age classes as of the first of the quarter, the number of sows farrowed during the preceding quarter, and farrowing intentions for the two subsequent quarters.

Another example of improving livestock estimates that is being made primarily by expanding the reporting program is the recent expansion in sheep on feed reports. The first November 1 sheep and lambs on feed statistical report was issued yesterday for 7 leading sheep feeding States. This report included estimates of sheep and lambs on feed by weight classes. Subsequent reports will be issued for January 1 and March 1. These reports will include, in addition to numbers on feed, data on marketings and numbers placed on feed.

State agencies have played an important role in the past and will continue to play an important role in the future in the livestock statistical area. In a substantial number of States the statistical program is conducted cooperatively by the State (usually the State department of agriculture or the agricultural college) and by the Federal Government. Many of the expanded reports that have been developed in recent years started in a cooperatively operated State office, some by work sponsored entirely by State funds, others by matched State-Federal funds under an AMA project. In many cases, after the report has been developed and tested and its value demonstrated in a State, it has been expanded to include many additional States. This procedure, in which the State and local people working with the State agricultural statistician develop a report to meet a local need, is a very effective way for people working in a State to make a substantial contribution to improving livestock estimates, not only for their State but for the country as a whole. Annual State Farm Census data, livestock assessment records, inshipment permits, brand records, and State inspection records are examples of data developed by State agencies that play an important role in the statistical program. In many States valuable sources of basic data have only been tapped.

Increasing the coverage and frequency of reports will in itself result in technical improvements. But more is needed. Some of the things that can and should be done to improve the reports from the technical standpoint are:

- (1) Develop accurate annual estimates by States of the number of farmers producing each livestock species by size group classes.

- (2) Coordinate and stratify the sample data by these size groups, and obtain adequate samples for each group.

- (3) Develop more comprehensive records of livestock marketings by State of origin.

- (4) Expand research specifically geared to studying problems involved in making livestock production and marketing estimates. Research is needed on data collection procedure, on survey questions to assure the respondent understands and can report the requested item, on refining the definitions and terminology used, on feasible methods of estimating number of producers by size classes, on developing a basis for accurately forecasting probable marketings.

To summarize, livestock estimates can be improved as basic working tools for the industry by two approaches:

(1) By modifying and expanding the reports to keep up with and meet present day needs for statistical data. State agencies working hand in hand with the USDA can continue to make important contributions in this area.

(2) By modifying and improving the technical procedure. In this connection, expanding the use of size group sampling techniques, using more interviewer sampling of both large and small operators, and developing more basic information on number of producers by size of operation for use in developing improved sample designs, all show considerable promise.

ADDITIONAL LIVESTOCK MARKETING INFORMATION NEEDED BY MARKET OPERATORS

H. R. Massey, Mississippi Livestock Producers Association

Areas of Need

1. Current wholesale meat prices.--A knowledge of wholesale carcass value is essential to the accurate pricing of slaughter livestock. Wholesale meat price quotations are currently available for only a relatively small number of the major consuming centers, such as Chicago, New York, San Francisco, and so forth. No such information is available for a southern point. Current quotations by regions, or sub-regions, of the United States would add much to the accuracy of pricing slaughter livestock.

2. Current reports on prices and supplies in nearby markets--both local markets and direct buying stations.--In all instances these prices should be quoted on a uniform basis.

3. A mechanism for informing producers of prices prevailing in the various markets of the area.--This would involve complete coverage of markets by a reporting agency such as the Federal-State Market News Service. In Alabama in 1958, approximately 20 markets were covered by Federal-State Market News Service. Since most auction markets are considered primarily of local importance, financing such reporting service would probably be considered in the main a responsibility of the State.

4. Advance information on forthcoming supplies of livestock--both the long run and the short run.--Current outlook information provides assistance to the alert market operator. But there is a need for information on expected market receipts in the immediate future to enable market operators to make necessary adjustments in market facilities, practices, and so forth.

5. Information on long-run demand for slaughter livestock.--This would enable market operators to advise with producers as to quantity and quality needed. Market operators have an obligation to people other than producers and must recognize these needs if they are to be successful over the long pull.

6. A better understanding by State marketing officials of Federal grade standards for livestock and meats.

7. Numbers on feed and on farms.

LOCAL LIVESTOCK MARKETING

E. E. Broadbent, University of Illinois College of Agriculture

With livestock the market is made up of many alternative kinds of organizations, i.e., terminal or central markets, direct packer buyers, order buyers, dealers, or commission merchants. Collectively, these organizations reflect the facts of production, processing, storage, and distribution of livestock and livestock products into a transfer price for livestock and meats. Ordinarily, with each movement there is a transfer of product and title at a negotiated price. The key to an effective understanding of the livestock market is its pricing system. For valid comparison - or reporting - we must make sure we are talking about the same market level.

Basically the price of livestock is set by meat consumers. The price consumers pay is conditioned by the structural organization of the market and the cost of performing services or functions by the different agencies who handle the livestock or meat. This structural organization is conditioned by technological developments in our economy. For example, the development of the railroads and the motortruck as a means of transporting livestock changed the entire character of the farmer's livestock market. It led to the development of many alternative markets. Each added marketing point weakened the structural set up, and consequently the pricing arrangements of established market outlets. Competition from new market outlets caused turmoil in the established markets.

I would like to illustrate changes in the structural organization of the livestock market with changes that have occurred around Illinois since World War I. In 1920, five terminal or central livestock markets in the State and a few scattered local markets handled most of the livestock. Because the Nation's railroads converged on Chicago and St. Louis, the flow of livestock naturally moved in that direction. Terminal packing industries developed to process the live animals and packer wholesale distribution systems were established from these terminals to move the finished product into consuming channels. By 1918, Chicago handled 17.4 percent of all the commercial slaughter of cattle produced in the United States and 15.7 percent of all hogs produced in this country. By 1920, Illinois slaughtered over 20 percent of the U. S. slaughter stock. We slaughtered half again more hogs than were produced in the State, and over three times the number of cattle that were produced. Country shipping associations were developed to consolidate local supply and to ship carloads of stock to the terminal markets for sale. Market news reporting services were developed to report, to both the producer and the trade, the predominant prices for different kinds of stock sold.

Last year Illinois slaughtered only about half the hogs produced in the State. Today cattle slaughter in the State is below farm marketings. From one-half to two-thirds of the hogs produced in Illinois are sold at country markets, and about one-half the hogs sold on the terminals are reshipped to other States for processing.

Four major order buying firms and over 10 packers have established many country buying points in Illinois. Illinois has over 180 country hog markets. The order buying firms, with central offices, operate as interior merchandisers for hogs and some cattle and sheep. These firms developed local country "feeder" market points that buy hogs directly from farmers to provide a source of supply to fill out-of-State packer orders for hogs.

Some 30 commercial slaughter plants, slaughtering over 2,000,000 pounds of live animals annually provide outlets for Illinois livestock. These outlets are located near railroad facilities at the larger markets. More than 106 smaller firms slaughter over 300,000 pounds of live animals annually. Less than 300,000 pounds of livestock are processed annually in 314 smaller slaughter plants. These may buy from local sources and supply local trade. Auction markets located at 77 points offer other alternative outlets for most classes of livestock.

In theory, the pricing system of the livestock market is simple to understand. In practice, with the whole maze of institutional arrangements, and the details of local pricing, it becomes extremely complex. Theoretically supply and demand set the price. (This assumes a perfect market.) In practice the market is not perfect and there is definitely not the degree of homogeneity in basic supply or in consumer demand assumed in most market analysis and reporting. Yet the pricing mechanism, and the market news reporting service, either by governmental agencies, or by private institutions, is the nervous system that guides our livestock market. The prices resulting from individual transactions as reported, are injected, digested, and interpreted, in short-run periods of time, to balance supply and demand.

How can we properly evaluate the local market so that it may be reported adequately? The late L. J. Norton, Professor of Marketing, University of Illinois, has suggested the following Criteria of a Good Pricing System. "A pricing system should (1) develop prices that reflect to producers the basic demands of consumers as to kind, quantity, and quality of goods and so guide production; (2) reflect prices that will move existing and forthcoming supplies through the channels of trade and/or into consumption at the highest possible net returns, i.e., to people or places where supplies will bring the highest net returns; (3) provide a price structure that maintains economically justified stocks both within and between marketing seasons; (4) be impartial and treat all producers and consumers alike; (5) reflect the quality differences recognized by the trade and consumers; (6) not be subject to manipulation; and (7) do all of these things economically and efficiently."

Guiding production. For the past 5 to 10 years the market interests, educators, and promoters have been talking a lot about quality hogs. The USDA Market News Service has been reporting daily market news quotations for six butcher classifications of 200- to 220-pound hogs, six classifications of 220- to 240-pound butchers, four 240- to 270-pound heavy butchers, and two 270- to 300-pound classes; 18 classifications in all plus four 180- to 200-pound butchers, and three or four sow classes. Our own new pilot market news reporting service in Illinois reports these same classifications.

During the past year we have attempted to evaluate the local pricing system operating in our State. Detailed sales invoices have been obtained from 102 of our major country hog-marketing points. A 10-percent enumeration of sales at the Illinois terminal markets was also obtained. Sales from these points will probably represent about 80 percent of the country movement of hogs. Market operators were interviewed regarding their use of market news information. These data are now being analyzed. A preliminary review of these data seem to indicate that:

Invoices and reports sent back to hog producers or suppliers include only the following very general information: number sold, total weight, price per hundred, commissions and/or yardage where applicable, miscellaneous deductions, and the name of the firm handling the sale of the hogs. For about half the time there appears to be no significant difference in prices paid for many lots of hogs that weigh from 190 to 260 pounds. The typical buying system is on a scheduled weight basis with evidence of "springing the price" about 25 cents for particular lots or deducting about 25 cents on other lots. Quite uniform discounts are taken for overweight and underweight hogs. The market news reports various combinations of prices for U. S. No. 1, 2, and 3 butcher classes and for sow classes. But most of the trade do not use these classifications in buying or selling hogs. Individual firms attempt to differentiate their base and weight classifications to set up their system as something distinct from other competitors. Terminology used implies "quality" differences, yet actual tests made reveal there may frequently be more differences within supposed "quality of grade" classifications than between these grades.

We checked local market prices quoted by local newspapers. There was ample evidence that buyers frequently may have deliberately planned to add confusion about the basic pricing structure of hogs marketed. There was absolutely no common base or method of reporting local prices paid. The base frequently would change from day to day or from one period of the year to the next. Such reports may have provided a good advertising medium for the firm listing the conglomerate prices, but it is doubtful if the producers could make any valid interpretation of the market from such quotations. With daily changes in the base price quotations become meaningless.

On the market we hear quite a little talk about quality or value differences. In actual practice most producers demand and are willing to accept "springing the market" by 25 cents, but not many are willing to accept the discounts. Market agencies admit that they try to get the premium--they also indicate they try to sell lower "quality" at "quality prices," not at a discount. Perhaps this is all that can be expected. This is probably what I would try too if I were in the commission agencies' position. It is questionable whether this will produce any long-lasting improvement in the market or the reporting of the market.

To adequately report the market, we must have the following conditions:

1. There must be an adequate volume.
2. Some system of standardization must be developed that is acceptable to the producer as well as the trade.
3. We must have outlets for the different classes or grades of livestock.

4. Price differences between grades must be significant enough to provide an incentive for the producers to make available the kind of livestock demanded.
5. A market news reporting system; either by the private trade or by governmental agencies, is needed to provide information to the whole market in such a way that it can be interpreted and thus guide market flow as well as production.
6. A system of checks needs to be developed so that the livestock segment can interpret value differences for the kinds of stock they are marketing. The news reporting service may be superbly reporting actual negotiated transactions but this report may not have much significance in translating actual value differences to the basic supplier of livestock.

FORECASTING THE MARKET

James H. Stevenson, Purdue University

Traditionally, agricultural institutions of various sorts have worked with farmers to forecast their market (farm prices) to aid them in making production decisions. We at Purdue wanted to service another segment of the livestock industry, the meat packing firms from a price decision standpoint. We felt we had a pretty good grasp of economic and statistical methods for doing price analysis, but had no real "front line" experience. In October 1959, we went to the management of a large regional packer in the State of Indiana to ask them if they would like to meet with us monthly to compare our statistical predictions with their judgment predictions. We said we would statistically predict, from one to six months in advance, Federally-inspected hog slaughter and certain wholesale meat prices.

Our prediction work consisted of basically a three-part team. The agricultural economists, statisticians, and electronic computer people. We used a multiple linear regression model approach and utilized a program already in existence at Purdue termed the Wherry-Doolittle regression correlation routine. We built prediction models for Federally-inspected slaughter and wholesale hams for each of the 12 months and predicted one and six months ahead. All the variables in our models were known at the time of the prediction. Therefore, we did not have to predict any of the independent variables.

In our work with this packer we felt both parties could gain. We felt we could improve our judgment through discussing with them trading practices. They would have first look at any research that we did. This, they felt, would help them in their business management planning, setting rates of slaughter in their own plant, and implementing sales programs.

For one year now, we have been meeting monthly with this firm. In attendance at these meetings are agricultural economists from the University plus the executive vice-president, general manager, plant manager, sales manager, and market analyst of the firm. We have provided them with data booklets which

they always have at their disposal and which we bring up to date at each meeting. Each month we make individual predictions, record them, and discuss them at the time they are made as well as at the next meeting. Each month we predict Federally-inspected slaughter for the next two months, the price of barrows and gilts for the next two months, seven wholesale cuts for the following month, and Federally-inspected slaughter and prices of barrows and gilts six months in advance in the months of June and December (pig crop report months). Each person gives his reasons for making his particular prediction. Their reasons have given us some valuable clues towards building new statistical models for predictions.

From the University's standpoint, this is a type of price forecasting work. To the firm involved, they hope to gain through using some of the information to help them in making storage (freezing) decisions. But from society's standpoint, it can mean more orderly marketing. For example, in January 1960 we began having very heavy hog slaughter runs, low hog and pork prices, and very little storage of pork. Packers that could accurately look ahead and see less slaughter and higher prices in the summer of 1960 began storing pork products. By July, slaughter was 34 percent below what it was in January and product started coming out of freezer stocks. The result was a more uniform supply of pork available to consumers and more uniform hog prices than would have been the case without intelligent storing decisions by packers.

In conclusion, both parties have benefited greatly. We have been stimulated and have gained from their experience. They feel they have improved their judgment in making predictions. They have observed and drawn conclusions from the research we have done. From a service standpoint, I think the biggest lesson to be learned comes from working with a firm on a continuing basis. The idea of making predictions month after month and evaluating them, and then doing this again and again makes one much more conscious of accuracy. It has something to do with "if first you don't succeed, try, try again!"

THE ROLE OF GRADE STANDARDS AND GRADING IN LIVESTOCK AND MEAT MARKETING

Willard F. Williams, Oklahoma State University

Producers, the marketing system, and all of us here are interested in marketing primarily because we are interested in promoting marketing efficiency. The same is true of our interest in grade standards and grading. Those who promote grading usually do so because they see this as one means of promoting marketing efficiency.

There are two basic types of efficiency in marketing. One is what we might call operating or "operational efficiency." This type is concerned with the operating costs of performing specific marketing functions. We have an operationally efficient marketing system if costs of performing each particular marketing function are reduced to a minimum. The other type some of us call "pricing efficiency." We do not usually think of prices and pricing in terms of efficiency but, it nevertheless, can be done. Pricing efficiency is concerned with the accuracy and speed with which prices are established and reflected

through the marketing system from consumer to producer or from one point in the system to another. Operational efficiency and pricing efficiency, I would say, are of equal importance in marketing.

The principal objective of grade standards and grading, then, is to improve operational efficiency, pricing efficiency, or both. Despite the perennial controversy, and this is a curious fact, there seems to be some general agreement that the official grade standards have had a beneficial effect, generally, on both operational and pricing efficiency.

Effects on Operational Efficiency

Standardized grading of meat has a beneficial effect on operational efficiency by tending to reduce marketing costs. This is done by:

1. Increasing the extent of buying and selling by description.
2. Eliminating time and expense associated with arguments regarding quality.
3. Increasing the market potential of suppliers previously operating on a local or regional basis and permitting them to sell most advantageously in a national market.
4. Widening the procurement territory of large-volume wholesalers and retailers and permitting them to buy most advantageously from among a larger number of suppliers.
5. Encouraging specialization among suppliers by function and type of product handled and type of outlet.
6. Reducing the pressure among suppliers for large expenditures on competitive brand advertising.
7. Affecting the location of the processing industry by encouraging the shift of functions such as slaughtering and packing from areas of primary consumption to areas of concentrated production.
8. Increasing the emphasis upon technological innovation, improved marketing practices, and other means of reducing costs through intensifying competition on a price basis.

All of these forces theoretically tend to have a downward effect on marketing costs and a beneficial effect on efficiency. With reductions in marketing cost, the total revenue received by producers presumably is increased. This is accomplished either directly by increasing prices received by producers or indirectly through lower prices to consumers which tends to increase the volume of product that producers can sell at specified prices.

Effects on Pricing Efficiency

There also seems to be some general agreement that the Federal grade standards for livestock and meat improve pricing efficiency. This is accomplished by:

1. Providing a universal and generally accepted language by which variations in attributes of quality and in prices can be interpreted.
2. Facilitating the collection of accurate information on demand, supplies available, and prices.
3. Facilitating the dissemination of pricing information in a meaningful, understandable and useful form.
4. Improving accuracy in the process of price formation itself by increasing the intensity of competition on a price basis.

Structural Effects of Grading

Since the principal objective of grade standards and grading is to improve operational and pricing efficiency in marketing, and since there seems to be little reason to think that these objectives have not been attained, at least in part, why the controversy? One of the reasons for the controversy is that grades and grading affect the organization or structure of an industry as well as its efficiency.

Grading has been responsible, or partly responsible, for changes and when changes take place someone is helped and someone is hurt--sometimes badly. By shifting the location of slaughtering and processing from consumption areas to areas of production, processors and slaughterers in the consumption areas are hurt. By making it possible for chains and other large-volume handlers to buy at a distance, actually most any place in the Nation, local packers and processors sometimes are hurt. By intensifying competition they have tended to force the more inefficient operators either to become more efficient or go out of business.

The carcass grades have seriously deteriorated the value to packers of their brand names and have tended to shift competitive power from the large brand-name packers to the medium-volume and specialized independent packers. It has meant literally millions of dollars in lost sales to these packers and contributed to changes in their entire mode of operation.

Some of the structural changes might be considered "good" and others "bad." I do not know as I am in no position to say. The point I want to make, however, is this: Many, perhaps most, of the structural changes were necessary to attain the primary objective for which the grade standards were established--that of improving operational and pricing efficiency.

Economic Criteria for Evaluating Grading Standards

There are other important reasons for controversy within the industry and among professional ranks regarding grade standards for livestock and meat. Part of it stems from lack of definitive information on the physical attributes of meat, the sensory characteristics of consumers, and what is meant by "quality." This has led to differences in implicit assumptions regarding the nature of

quality in meat and the manner in which one grade should be related to another. Lack of good information also has led to differences in ideas regarding the kind of grading system that is required to attain stated objectives.

Effects of Variations in Basic Assumptions

Most statements on quality in meat and grading that I have read assume implicitly that any grading system should tell consumers which grade or quality is "best," which "second best," which "third best," and so forth. When, in this sense, we consider grades as vertically oriented, we must also assume that quality can be described as a single continuous variable running from some presumed "low" level of quality to some presumed "high" level. We also must assume that everyone agrees on the definitions of "high" and "low."

With this type of vertical orientation, we would be much concerned with results of consumer preference studies indicating that (1) some but not all consumers preferred the "highest" grade, or that (2) the one of the lower grades received the most consumer votes. We might conclude, as some have, that grades are not oriented to consumer preferences. Packers and others who unconsciously assume that grades are or should be vertically oriented and note that choice is "too fat" for some consumers might arrive at the same conclusion. In addition, we would expect the "highest" grade to be consistently associated with the "highest" price.

Another set of assumptions, however, could as easily and, perhaps more realistically, be adopted. We could assume, for instance, that grades should tell us only that the quality represented by one grade is different than the quality represented by another grade. With this type of an orientation which we might call horizontal, it would not be necessary to assume that quality is a single continuous variable, or that value systems of consumers are similar. We would not be disturbed when preference studies indicated that most consumers preferred standard or commercial, or some other grade. We simply would point out that grades are indicators of quality differences, not levels, and that if you do not care for one grade you should try another.

The Minimum Requirements

There are three principal minimum economic criteria for grading. These are:

1. The grading system must significantly reduce the variation in basic quality attributes. The variation in at least some of the grades must be significantly smaller than the variation in the entire population of the product.
2. The grading system must reflect some significant differences between at least some of the grades in basic physical quality attributes. This does not mean (a) that there will not be some overlapping among the grades in quality attributes, or (b) that the grades should differ significantly or at all in value to consumers. It simply ensures that 2 or more grades will not include precisely the same range or combination of basic physical attributes.

3. The grading system must result in at least some net social gain. It must provide enough increase in satisfaction or utility to consumers or marketing firms to more than offset the increase, if any, in direct and indirect costs associated with grading. The increase in satisfaction or utility can be provided in either one of two ways. Grades could increase the value of the product to consumers sufficiently that they are willing to increase the prices they pay for the product without reducing their consumption. Alternatively, grades could result in net reductions in marketing costs.

Almost any conceivable division of a product on the basis of known quality attributes would satisfy the requirements of the first two criteria. Suppose we separate processing beef from block beef by grades. This satisfied the first two criteria. The variation in quality attributes of block beef probably is smaller than the variation in the total of block and processing beef. In addition, the two differ significantly in the range and combinations of attributes that would be considered. The third criterion, however, would not be satisfied unless it can be shown that (1) the two grades are useful in buying and selling beef, and (2) they are sufficiently useful that they result in net cost savings. These two grades probably would fail this test because buyers and sellers can recognize each type readily - they can distinguish quickly and accurately without aid between block and processing beef.

The present Federal carcass grade standards, it appears, probably do meet all three of these minimum requirements. Variation in quality within each of the grades probably is less than variation in the entire population of the product. The grades seem to differ significantly in basic physical attributes. In addition, reductions in marketing costs, described earlier, and revenue increases that can be attributed to grading, it appears, greatly exceed any associated direct or indirect cost increases. Accordingly, we can say with some degree of confidence that the present carcass grade standards are better than none whatever.

Requirements of an Optimum System

Most of us, however, are not satisfied with a grading system that simply meets minimum requirements. What are the requirements for an optimum system and what do we do to move toward the optimum? These are important questions. The principal criteria are four:

1. The standard should separate units of the commodity into groups so that the within-grade variation in quality attributes will have been minimized.
2. The standard should maximize differences in attributes between grades which means that overlapping should be reduced to a minimum.
3. The standard should separate units of the commodity into groups so that the net social gain has been maximized. This means (1) maximizing the difference between costs of grading and the additional value of the graded product to consumers or (2) maximizing any net reduction in marketing costs.

4. The final criterion is that, insofar as possible, the first three should be satisfied simultaneously. In addition, the system must be (1) simple, easily, widely and uniformly understood, (2) fixed and unchanging in a short-term sense and, at the same time, subject to change as warranted by longer-term considerations, and (3) workable in the marketplace.

Implications of Optimum Criteria

These are a tall order for any grading system. The principal relevance of these criteria is in pointing the way to the kinds of research that are needed, but they tell us some things immediately. For instance:

1. Since quality in beef, clearly, is not a single discrete variable, but a complex structure of many variables, we must be prepared in any grading system to accept:
 - a. some degree of heterogeneity within the grades with respect to physical attributes of meat.
 - b. some overlapping among the grades with respect to each of the various quality attributes.
2. Since value systems of all consumers are not the same and usefulness or value of any particular grade will differ among different uses, we should:
 - a. work for neutral grade names,
 - b. recognize that the price of meat or livestock in any particular grade need not, purely as a result of grading, bear any particular relation to the price in another grade.
3. We must realize that whatever grading system we have, it inevitably will be a compromise between minimization of quality variation and the cost of inconvenience of doing so.
4. The criteria indicate that the grade must be useful to buyers and sellers and consumers in buying and selling and that attempts to shove all of the product under some particularly favorable grade name may destroy this usefulness.
5. We need to recognize that if the present grade standards do in fact satisfy the minimum economic requirements, we should stop making statements implying, simply because they could be improved, that we would be better off with no standards whatever.
6. By these criteria we can say that in dual grading standards for beef which the Grading Service has proposed theoretically at least represent an improvement.

The research implications are numerous. We need to know more about (1) the physical attributes that are found in meat, and (2) the physical attributes and combinations of attributes which are important to consumers, and among different use categories. On the basis of this and other information, we need to delineate or specify quality categories that are both reasonably homogeneous with respect

to physical attributes and meaningful to consumers. These categories might be large in number and would constitute our working tools.

At this point it might be possible to combine the aforementioned categories variously into several different alternative sets of standards. Suppose we had 20 categories that included combinations of attributes that are found readily in meat and that are important to consumers. Suppose, however, that we considered five grades the maximum number for practical workability in the marketplace. From the 20 categories we could derive several different sets of grades that might be considered within the range of practicability. The problem then would be to determine which set should be selected and not, as has been done in some of our research, which grade of a specific set receives the most preference votes from consumers. We would select that set which (1) minimized the within-grade variation in attributes, and (2) maximized the total acceptability or value to consumers, not of one grade, but of all grades, that is, the total population of the product. This, then, it seems to me, is the ultimate objective and role of grades,--i.e., to increase and maximize the net revenue received from the sale of all categories of the product. This would be accomplished by selecting the standard that (1) minimized marketing costs and thereby increased the total consumption of the product, or (2) increased the prices consumers were ready and willing to pay without reducing their consumption, or (3) had some combination of effects (1) and (2).

All of this research, of course, could not be accomplished quickly and easily. The research will constitute a tortuous process requiring many years. In the meantime, it will be necessary to proceed, as before, on the basis of assumptions and the best logic and information available.

HOW TO ORGANIZE A LIVESTOCK GRADING PROGRAM

Grant Moffett

Virginia Department of Agriculture and Immigration

The application of live grades to marketing livestock in Virginia has been used since the early 1930's. During this period, State graders in Virginia have graded over 7 million head of livestock. The lambs, hogs, feeder cattle, yearling cattle, and veal have made up the principal volume of this 7 million head. Last year we graded slightly over a half million head for the fiscal year ending June 30, 1960.

We believe that the application of live grades in a practical program of marketing is the best vehicle to develop an aggressive marketing program for livestock. This principle has been applied through the special sale technique for feeder calves, yearling cattle, fat cattle, and feeder pigs. We also believe that without this vehicle of live grading that it is almost impossible to develop a good aggressive program in livestock marketing.

It should be noted that there are other essential principles that must be applied along with livestock grading to make this program effective. These principles are:

1. A good marketing organization is essential to provide the opportunity to get farmer participation in livestock marketing programs. These marketing organizations take the form of small cooperatives or associations which organize and supervise the special sales at a local auction market.
2. A State grading program for live animals will enable the organization to sell on a merit basis. The history of our marketing programs in Virginia reveals that price differential exists between grades. This rewards the producers who are improving the quality of their livestock and discounts those that should be discounted. It is also an effective educational tool for our educational agencies to reflect market demand to the producer level of our livestock industry.
3. Product packaging is a must to improve sales appearance. This includes commingling of ownership and weight cutting of livestock so that they can be penned to develop an attractive, uniform appearance. This requires efficient individual ownership identification and proper attention to record keeping at the auction market.
4. Efficient market facilities will assist livestock producers to reduce their selling time. Programs utilizing the techniques of live grading and product packaging require efficient unloading chutes, holding pens, and the scales must be conveniently located to expedite a quick flow of livestock through the auction to the final pens with the minimum loss of time. Inefficient facilities will result in confusion within the market, long waiting periods for farmers, and excessive delays at selling time.
5. Competitive pricing should be part of the marketing system to give the farmer bargaining power in selling. Here, the auction system has proven effective when good ethical trading practices are followed.
6. Buyer contact will increase volume of buying power at the time of sale. Most of our special sales organizations deduct a specific amount of money to be used exclusively for buyer contact promotion. It should be noted that volume buyers are needed for volume sales. Most sales require buyers who can purchase supplies in volume and take this supply out of the local area.
7. Market information is an essential marketing tool to inform producers of the selling price of livestock by grades. This can be in the form of daily market news reports and special news releases to county papers giving the progress of the sales. This technique is especially essential to maintain producer interest in a successful marketing program and to encourage consignments.

We believe that a good, well-organized livestock grading program is the best vehicle to use in inaugurating and developing good livestock marketing programs. It requires close cooperation between farmers, marketing agencies

and buyers. These sales must be farmer supported, farmer operated, and farmer supervised. We act in an advisory capacity to the local marketing organizations in setting up sales organizations, arranging facilities, and securing buying power for individual sales.

The development of an efficient live grading program is dependent upon money and personnel. A State department of agriculture needs appropriated funds to administer and promote a live grading program in its respective area. They also need to set realistic livestock grading fees to perform the actual livestock grading service at the individual sales locations. These fees should cover the actual cost of performing the services of live grading at the marketing level. It is essential to initiate the fee system at the beginning of a good marketing program to get public acceptance and farmer support for the fee system. Dedicated personnel that have inherent livestock know-how are essential to a good livestock grading program. Wherever possible, these persons should be graduates of a State agricultural college. Salaries must be attractive to maintain good men in the service so that over a period of time creditability and acceptability can be developed for this program within each individual department. Periodic training programs are essential to develop uniform interpretations of live grades and to keep ourselves in alignment with the interpretations of USDA standards.

The South offers for State departments of agriculture a new frontier in livestock marketing. State departments must accept their basic responsibilities in this field. Organizing a good livestock grading program is the first step to meeting these responsibilities. This, then, will become the vehicle for developing efficient marketing programs for farmers that will sell livestock on a merit basis to meet market demand and reward farmers who are improving their herds.

SYSTEMS OF HOG BUYING IN USE

W. C. Haase, Swift & Company

The swine industry is undergoing many changes. It was not until the late 1940's that there was undertaken some concerted effort to establish new methods of hog evaluation as a means to lend direction for producing desirable meat-type hogs. The USDA grades for hogs were announced in 1951 and amended in 1955.

After World War II, hog producers actively assumed their role in developing meat-type hogs. It is estimated that as late as 5 years ago not more than 5 to 7 percent of the hog population could be classified as meat-type. While an earlier acknowledgment of the importance of type as an added factor in hog evaluation and buying methods would have helped speed up development of meat-type hogs, there was actually little commercial opportunity to give this recognition.

Meat packers in general have changed evaluation systems and methods of buying. Basically, a packer's hog evaluating system consists of the following elements:

1. A method of accounting for and allocating costs against the pork products produced.

2. A method of classifying the pork products produced into value groupings according to qualities and weights.
3. A method of measuring the actual value obtained against what the buyers paid.

There are several "systems" of evaluating and buying hogs that give consideration to what we refer to as the new "value" factor of type. It is questionable that there will ever be one system that will fit the needs of all packers, large and small, in various geographical locations.

Most of you are familiar with some of these buying systems used today, especially those employing U. S. Department of Agriculture grades. I am assuming that most meat packers who use Government grades base their value differences, as we did originally, on cut-out values. This means a simple arithmetic difference between the values arrived at in U. S. No. 1 and 2's and between 2's and 3's, and so forth.

Many packers who continue to use the U.S.D.A. grades have added additional grades. One meat packer for example uses four grades instead of the customary three. Another uses six grades when he buys on grade and yield. Apparently, these six grades are a further refinement of the U.S.D.A. grades. Other packers use a specially designed grade that reflects a higher paying price for the best meat-type hogs. The use of these refinements in the U.S.D.A. grades would substantiate the conclusion we reached that present Government grade standards are not adequate.

Some meat packers buy hogs on a grade and yield basis. Packers buying on this basis use varying systems of type and quality designation--some using the U.S.D.A. grades, others modification of U.S.D.A. grades, and still others grading on the basis of the yield of lean cuts with a separate designation for lack of quality ex mediums and culls.

Experience showed us that even though graders were trained to use the ruler and to take conformation into consideration--there was the weakness of having to apply judgment in appraising the factor of conformation and muscling in the individual carcasses. Actual tests reveal that some groups of hogs which graded predominantly U. S. No. 1's, when cut, had a lower yield of the four lean cuts (ham, loin, picnic, and Boston butts) than some groups of hogs that graded predominantly U. S. No. 2's. This same thing occurred when comparing some groups that graded predominantly No. 2's with groups that graded predominantly No. 3's. There were even extremes when a lot grading predominantly No. 1's actually cut out a lower percent of lean cuts than a group of hogs grading predominantly No. 3's.

At the time these facts were being developed, it was established that trained buyers could look at individual lots of hogs and accurately estimate the percent of the four lean cuts, live basis that could be obtained from them. As a result, about two years ago we discontinued the grading of carcasses in plants and began training buyers to buy hogs on the lean cut yield approach.

Data which follow were taken from the studies made by six Midwestern land grant colleges and published in "Objective Carcass Grade Standards for Slaughter

This study shows on the average that the back fat was a "reasonable" measure of the percent of lean cuts in a hog. The average coefficient of determination was 70.5. However, when the data are examined closely, it will be noted that both Michigan and Ohio had substantially different results. It is apparent that these differentials help explain why some of our own hogs which graded predominantly U. S. No. 2, were actually better than some groups graded predominantly U. S. No. 1.

This report contains a very interesting and significant chart entitled "Relationship between average back fat thickness and the percent of four lean cuts for a sample of 145- to 150-pound carcass weight group from one State." Drawing vertical lines on this chart between figures 1.3 and 1.6 inches of back fat, there are 26 carcasses that fell within this range. On the basis of lean cut yield from the carcass, however, there is a range of from 47 to 56 percent. Ruling out four extreme instances, the majority of the carcasses fall in the range of a yield of from 49 to 54 percent. This simply means that in using back fat thickness as an indicator of yield of the four lean cuts of the carcass, there is a variation of five full percentage points. When one of those percentage points is worth 25 cents, considerable money is at stake with such a wide range of percentage results.

Additional studies have been made by the Department of Agriculture in cooperation with a major meat packing plant at Madison, Wisconsin. This is a study of 379 hogs individually weighed, individually slaughtered, measured, cut, and re-measured. A 0.54 correlation of back fat to total value means that back fat thickness could account for only 30 percent of the variation in the cut-out values. Using average prices for the various cuts over a four-year period, it was determined in this work that a correlation of 0.56 had an evaluation error of 59 cents per hundredweight alive.

It is significant to find the following statement in the recent Agricultural Marketing Service leaflet No. 412 dated October 1960, entitled "How Do Your Hogs Grade."

"For a more accurate estimate of yields (4 lean cuts) other factors must be considered along with back fat thickness, especially when this measurement is near the limits of a grade. Thickness of muscling can be a deciding factor."

The swift method of evaluation and buying is merely an application of a long established principle. It is significant that the measures of validity in the U.S.D.A. grading standards are in fact based upon the yield of the four lean cuts. Therefore, it would appear that these lean cut yields have for a long time been used as the most practical method to compare other methods of evaluation. Isn't it, therefore, logical to use this established principle of yield in the four primal cuts as a method or technique of buying rather than something which is so obviously less satisfactory?

We believe that there are a number of advantages in using the lean yield cut principle as a method of evaluating hogs, whether alive or dressed:

1. It provides a greater degree of accuracy in evaluating different types of hogs. This is especially true when actual cutting tests can be made to obtain actual yields of the four lean cuts.
2. The lean cut yield principle provides a much needed vehicle to widen the spread in paying prices. With only three grades, such as the present U.S.D.A. grades, the spread cannot be as great as with five or more grades. The latter is possible when live hogs vary as much as 6 percentage points in the yield of the four primal cuts, live basis, and on a carcass basis 10 or more percentage points.
3. This system is not tied to a rigid description of specifications, and therefore, leaves no limit on either end of its scale to compensate for increasing or decreasing scales of quality.

Refer to the leaflet - "A Commercial Application of the 4 Lean-Cut Yield Variation Principle" as to how the system is used on a given weight of live hogs.

Grade and yield buying has been offered by a number of packers. Swift offers grade and yield at the Des Moines plant. The approach to grading carcasses is the same as is used in live merit buying, that is, carcasses are graded on the basis of lean cuts, but from a carcass percentage standpoint, that is 47's, 48's, 43's, and 52's, etc. The base starting price is for carcasses estimated to yield 47 percent of the four lean cuts, and a plus or minus value is added or subtracted for each percent yield above or below base.

Grade and yield will improve to a degree the accuracy of hog evaluation. Weighing each carcass removes estimating the dressing percent and is rather exact. However, the weighing is done on a warm carcass basis, and I know of no research work that has been done to determine whether some hogs shrink more before cutting than others. Weighing each individual carcass also puts every single animal in its proper weight bracket.

Rail grading offers an additional advantage as producers are given more specific information on the hogs that they sell. These advantages must be weighed against some of the disadvantages. One in particular is the extra cost in handling hogs. This must be paid by someone, and most likely producers will pay the added cost.

In my opinion, grade and yield selling, not buying, will increase only if it is of an economic advantage to the producer, assuming, of course, the decision is based upon our freedom of choice. The producer is the one who finally determines what he is going to produce, when and where he is going to sell it, and how he sells it.

LOCATING A LIVESTOCK MARKET

C. G. Randell, Farmer Cooperative Service

In determining the location of an auction facility, a number of factors must be considered before reaching a decision. Important among these are the following:

1. Market livestock concentration
2. Transportation
3. Competition
4. Shifting of trade centers
5. Special factors
6. Sociological factors

Market Livestock Concentration.--Don't guess on your potential volume of livestock. From the Bureau of the Census or Stated epartment of agriculture, get the data covering number of livestock on farms and marketings by townships, if possible. Draw concentric circles, with intervals of 10 miles, around the points under consideration to get a more accurate picture of the potential volume in a given area. Volume by counties may not give you a true picture of the concentration of livestock numbers in your trade territory.

If you can forecast the percent of receipts you should get from areas of various distances, then you can calculate your potential receipts. When your operations get under way, then you can measure the job you are doing by comparing actual receipts with potential receipts.

In locating facilities in areas of heavy hog production, concentration points or buying points can be placed closer to each other, because farmers do not like to truck hogs long distances. If hog farmers had their way, they would like to keep the haul under 25 miles and many prefer to market not over 10 miles from their farm. With cattle, stockmen are not so fussy. At some auctions, one finds almost as many cattle coming to the acution from a radius of 25 to 50 miles as from an area under 25 miles in radius.

The importance, however, of the first 25-mile radius in locating auctions is borne out by a USDA study, "Livestock Auction Markets in the United States."^{1/} In 1955, the auctions studied received from within the 25-mile radius three-fourths of their supply of hogs, two-thirds of the calves, and over half the cattle, sheep, and lambs. The importance of the first 25 miles has been borne out by other studies.

Transportation.--Highway distances and traffic conditions are important to the success of an auction market. Since livestock moves to auction markets by car, trailer, and various sized trucks, the presence of narrow, hilly, crooked or rough roads may impose limitations on market locations just as much as the absence of roads in some areas.

When locating near a high-speed super highway, it is advisable to get permission from the State Highway Commission for egress. It could be embarrassing to build or start to build a facility and then find that egress at point of auction was denied because of the possible hazard of many slow-moving vehicles turning in or out of traffic.

Another good tip in locating auctions is to take care you don't get backed up to a large lake or river - particularly a big river - as main highways over rivers are usually congested with traffic. When you are backed up to a large body of water, you limit your trade territory.

^{1/} Engelman, Gerald, and Pence, Betty Sue. Livestock Auction Markets in the U. S. Mkt .Res.Rpt. 223, Agricultural Marketing Service, U.S.Dept.of Agr., 1958.

Competition.--Wherever you locate you can be sure that there will be competition. Furthermore, in most areas, the good locations have already been chosen and some type of livestock facility is now operating. Your competition will be other auctions, concentration yards, order buying facilities, packer buying points, terminal markets, meat plants buying direct, and usually a host of traders and speculators who already have market connections.

It is a good idea to study your competition by classes. This is especially true when one is planning to establish a chain of auctions or of buying or order selling points over a given State.

To get a picture of your competition, you can mark your prospective location in bold symbols on a map. Next plot the location of competing auctions on a transparency that covers your master sheet. Then on successive transparencies, plot locations of packer buying points, concentration yards, order buyers, and other important types of competition, closing with the local dealers and traders. Of course, the latter group may develop into your customers unless they already have definite connections and have a guaranteed price arrangement with some packers.

These successive transparencies will give virtually a complete picture of competition from established agencies and individuals. There still may be itinerant buyers who provide competition on a seasonal or periodic basis.

The characteristics of your buying competition must be closely studied in locating facilities. Some large packers do not like auctions and will not support them unless they desperately need volume. Their program is to secure volume from their own buying points. They can make it plenty tough if they choose by bidding up stock at their buying station located in your area.

Beware of a situation where you have to depend on one or two buyers for a given kind of stock. Additional buying competition must be brought to your facility.

If you are establishing a chain of auctions, you will not be able to control your competition, but you can keep from competing with yourself. This means keeping your facilities 40 to 50 miles from each other. Make concentric circles with a radius of 25 miles from each point you have selected and see how much interlocking of circles you get.

Frequently in livestock areas there will be low spots with respect to prices. These may appear inviting, but in locating facilities don't depend on the situation remaining status quo. Local buyers usually change that situation when you move in with your competitive facility.

Shifting of Trade Centers.--The possible shifting of trade centers must be taken into consideration in locating an auction. Many farmers and their wives like to combine an auction day with some trading or shopping. If for some reason, possibly the location of industrial plants in the area, one town grows rapidly and brings in new stores, then farmers will shift their purchasing to the growing area.

Urbanization, however, can be a distinct handicap in location. Urbanization is putting some terminal markets out of business and greatly decreasing the volume of others. Auctions are also caught in this same squeeze. The closing of the Los Angeles, South San Francisco, and Seattle stockyards, the impending closing of Buffalo stockyards, the decline in receipts at most markets in the Midwest and East, all attest to the fact that farmers and truckers more and more are shying away from long drives with their stock through miles of crowded streets.

Other factors are decentralization of packing industry and stockyards property becoming too valuable to operate as stockyards.

Special Factors.--Every situation must be checked individually. For example, local zoning and other civil regulations may differ greatly, not only with regard to placement, but as to building permits for establishing such a facility as you may want to set up.

Ordinarily it is not good to build another facility in the same location as that of an existing facility, particularly if the operator has a good business and enjoys the confidence of the community. An exception would be where the business of the local operator was slipping and he had a good location but refused to sell.

The facilities of a livestock auction market should be situated so the prevailing winds will take odors away from the headquarters or offices. They should, if possible, be constructed at the crest of a small hill. This provides a natural slope for drainage and will help maintain sanitary conditions.

In locating auctions, don't economize too much on land, particularly if it is planned to handle a large volume of stocker and feeder animals. It is advantageous to have a good pasture area adjacent to the auction to condition animals. If it is planned to bring in large shipments of feeder stock from the West for distribution, for example, then a pasture acreage adjacent to the facility is almost a necessity.

We know from experience that large volume auctions have a number of advantages over smaller auctions. The increased volume will attract more buyers and tend to improve competitive buying. The larger auctions will draw livestock from longer distances, thus serving larger numbers of farmers.

The bulk of auction costs are fixed costs. Handling additional livestock units can be done at little additional total cost to the auction. Another recent USDA study indicated that the large volume auction markets have lower unit costs and greater efficiency. 2/

Sociological Factors.--Some locations for livestock markets appear so favorable they are taken for granted.

2/ Stevens, Ira M. and Fox, R. L. Improving Livestock Marketing Efficiency; a Study of Nine Cooperative Livestock Markets in Ohio, Indiana and Michigan. General Report 39, Farmer Cooperative Service, U. S. Dept. of Agr., 1958.

Here is a zone where cooperatives get into trouble. It could be assumed that in an area where there is a large farm organization membership, a cooperative market facility would be supported by that membership, particularly when the farm organization financed and built the facility and selected the management. Yet, I can show you examples where these markets have failed to become an important marketing unit even with good facilities and competent management.

In some areas farmers may work together. In other areas they are individualists and are not prone to work together. They may cooperate socially but not on business deals. I am not a rural sociologist and cannot explain this behavior. A buyer for a large packing company recently told a farm leader that if he were locating a cooperative facility, he would call in as a consultant a sociologist and have him make a study to see if farmers in the area had a history of cooperating or not cooperating on projects.

Location of Meat Plants

I have worked and visited many meat plants located in low areas plagued by smoke and smog and with general surroundings not too attractive. Thus I have some definite ideas on location of meat plants. When the directors of Shenandoah Valley Meat Packers, Inc., Timberville, Virginia, wanted to build a meat plant in the Shenandoah Valley of Virginia, they asked me to choose a site for the plant. I suggested that this be one meat packing plant that was built on a hill. The site selected is on a hill overlooking the Shenandoah River which partially encircles the plant. I have always been proud of this site even if we did have to blast out rocks for the basement area.

In locating meat plants it is important to look for an adequate supply of livestock that can be secured without too heavy transportation expense and consequent shrink. Satisfactory transportation and stockyard facilities are also important. There should be enough space for stockyards so that plants will not have to operate on a hand-to-mouth basis.

Proximity of market for the finished product is very important. Many small and medium sized plants like to sell at least 75 percent of their products within a radius of 100 miles from their plant. This results in large savings in selling and in delivery costs.

The site should be large enough to allow for future expansion and changes. This means that slaughter lines, refrigerated areas, and processing departments should be laid out so that operations can be stepped up without materially changing the equipment layout and flow of product.

Avoid areas where prevailing winds will carry smoke or dust into the plant. Another thing, avoid areas where drainage is poor and the plant is subject to river overflow or tidal wave. Either of these latter items can be very costly. One of the main considerations in locating a plant is an ample supply of potable water. By potable I mean water which will pass drinking water standards promulgated by the U. S. Public Health Service.

Sewage disposal is another important factor. If there is a municipal system that you can hook on to, well and good. If the plant discharge is in a stream, then it is usually necessary to have a series of catch basins so only the affluent will run into the stream. If the discharge is into a stream, there must be running water the year around to carry away the waste.

If a plant is planning on Federal inspection, it must be separated from any other building, whether residential or commercial, and no communication is permitted. Then too, if a retail meat business is carried on at the plant, customers may only enter the meat sales section and are excluded from other departments.

In conclusion, I will mention one other factor - the quality and character of the labor supply.

I would never locate a meat plant in an area that had a reputation for labor trouble. In some sections, skilled packinghouse workers are virtually nonexistent. This means a long training period, perhaps 6 months to a year before operational efficiency can be achieved. Finally when you attempt to bring skilled labor from cities to a plant in a rural area, you may experience a lot of dissatisfaction. They are used to a different environment, a different way of life. Frequently the workers and their wives cannot make the adjustment and they leave. This is one of the factors you do not read about in plant location. This and some other factors you have to learn the hard way.

CUTTING THE COST OF OPERATIONS

W. K. McPherson, University of Florida

Marketing firms are primarily interested in maximizing net returns rather than reducing operation costs. Cutting the cost of operations will help these firms maximize net returns in some instances but not in others.

The primary objective of most marketing firms is to increase net returns by increasing output, and increasing output inevitably results in increasing rather than decreasing total operating costs. On the other hand, marketing firms do endeavor to reduce the cost of operation by (1) producing a given volume of output at a lower cost per unit, and (2) increasing output when increasing output will reduce the average unit cost (assuming price remains constant). The unit cost of production can be reduced by reducing (1) the fixed unit costs paid owners, (2) fixed unit costs paid others, (3) variable unit costs paid for fixed amounts of inputs, and (4) variable unit costs of producing by alternative methods and/or with alternative capital goods. The method and possible consequences of reducing each of these types of fixed unit costs follow:

1. Fixed unit costs paid owners (opportunity costs) include return for the owner's capital invested up to prevailing interest rates for similar investments, salaries paid owners who are active in the enterprise up to the level they could earn in other enterprises, and so forth. Cost reductions of this type increase the net returns to the firm but reduce the net income of specific owners--often more than their income is increased by the resulting increase in the dividend rate.

2. Fixed unit costs paid others. Fixed costs paid others include taxes, rent, interest to other than members of the firm, utilities and all personal services--the quantity of which do not vary with output. The fixed unit cost paid for personal services can be reduced by shifting workers from a straight salary to a commission or piece work basis, when doing so will not affect the quality or amount of the product.

Fixed unit costs incurred in collecting market information on both price and availability of raw materials and competing products, and grading and standardization can be reduced by (1) reducing the number and/or wages of our employees engaged in this type of work, (2) reducing the cost of the materials they use (teletypes, telephones, laboratory equipment, and so forth, and (3) increasing the amount of public services used in making management decisions (market news and grade standards).

3. Variable unit costs paid for fixed quantities of inputs--i.e., raw materials and labor can be reduced by reducing the price paid for a fixed quantity of raw materials and/or the wage rate. The net effects of reducing this type of unit costs are (1) to reduce the quality of the product produced and/or (2) reduce the purchasing power of the vender of the raw materials and/or employees.
4. Variable unit costs can be reduced by adopting a more efficient production technique which may or may not call for additional mechanization or automation. In the instances in which the introduction of a new production technique calls for more mechanization or automation, the fixed unit cost will rise to cover interest and depreciation on new capital goods. Whether or not the change is made depends, of course, upon whether variable unit costs will be reduced more than fixed unit costs will be increased, i. e., whether total unit costs are reduced. The entire economy will benefit from this type of cost reduction to the extent that it (1) reduces price of the finished product as a result of a firm's effort to increase net income by expanding sales and hence (2) raises the price of raw materials as a result of a firm's bidding up the price of the raw materials needed to expand output.

The extent to which the assumption that it is appropriate for marketing specialists employed by State departments of agriculture to help marketing firms is valid varies from State to State. The Commissioner of Secretary of Agriculture in each State determines the amount and kind of assistance that marketing specialists will make available to marketing firms. The numerous ideas regarding how much responsibility marketing specialists should assume in this area can be classified into three discernible and different concepts. The kind of assistance it is appropriate for marketing specialists to give firms endeavoring to cut operating costs under each of these concepts follows:

1. Marketing specialists should confine their efforts to helping farmers cut their operating costs.

2. Marketing specialists should assist all the firms that produce, assemble, process, and distribute agricultural products cut their operating costs.
3. Marketing specialists should assist marketing firms cut their operating costs only when cutting operating costs will benefit both the producers and consumers, i.e., the general public.

Thus it must be concluded that the number and kind of opportunities marketing specialists have to assist marketing firms cut operating costs depends almost entirely on the policy that prevails in the departments of agriculture in their respective States. Whether or not marketing specialists are successful in carrying out these policies depends, of course, upon their ability to suggest methods of cutting costs that are practical under the conditions they are to be used.

INDUSTRY DEVELOPMENT VS. MARKETING PROGRAMS

J. T. Wooten

National Association of Livestock Auction Markets

Livestock auction markets as you know them, and as I know them, from State to State, are a relatively new industry development in the broad scope of the livestock industry and especially the marketing phases of it.

Very little of the amount of statistical and marketing research data from the U. S. Department of Agriculture, and other sources, has yet been developed to the point of portraying these markets in their proper perspective. This is especially true when comparative studies are released, for the simple reason that the basic data is not available from which to draw accurate comparisons or trend conclusions. It is also true from a proper evaluation of their economic importance.

In the vast majority of the States the respective departments of agriculture, or comparable agencies, have been delegated the responsibility of administering enacted regulatory laws applicable to livestock market operations. These are generally applicable in the fields of licensing, livestock sanitation, and disease prevention.

At the same time, the Federal Packers and Stockyards Act, a purely regulatory law of financial responsibility and fair trade practices in livestock marketing, has been in effect since 1921. It was only two years ago, however, that such Act was extended by Congress to apply uniformly to livestock marketing transactions. Administration of the Act, delegated to the U. S. Department of Agriculture, is yet in the process of reaching industrywide application as directed by Congress.

Further, the greater amount of educational activities in livestock marketing have followed much the same lines as those pursued in livestock breeding, production, and feeding, but with less emphasis. In many instances these efforts

have led to a wide assortment of livestock selling endeavors under a rather broad category of demonstration sales.

Let us look to those same markets each as an independent business enterprise in the same sense as a familiar retail store, automobile dealership, bank, or small manufacturing concern.

Varying greatly in type of construction and design, we see a physical plant in these terms:

An establishment of facilities for rendering stockyard and selling services to owners of livestock where such livestock are assembled for sale and sold on the basis of competitive bids by auction. Accommodations for the public are provided on the basis of these purposes.

As a business concern the market you see functions in this manner: It is operated and conducted as a public market for the care, sale, and purchase of livestock and is a public service business with its income derived from a uniform basis of charges for those services rendered.

The proprietorship responsibilities of this market involve: A strict fiduciary position of high trust in the handling of livestock entrusted to it and the proceeds from the sale of that livestock; high standards of honesty and integrity in all business transactions prevail; there is direct-responsibility management in all features of a complete market service.

This is a thumbnail sketch of what we see and what we have every right to expect in its operations. It does not tell the whole story in economic value, productive results and know-how necessary for operation.

Through our trade association organization, which is merely the means and orderly manner through which progressive market owners work together in developing and advancing their common interests in improved facilities and services, our efforts have been exerted to establish and gain favorable public recognition as an integral part of the livestock economy. Considerable strides have been made in this respect.

There now has emerged from these same efforts a very tangible and recognizable public livestock market, the Nationally Certified market. Such designation is denoted by a public pledge from the owner of a high level of business standards in all operations and services as a complete market service on the basis of an industry-adopted Code of Business Standards. Compliance with the Code is maintained through effective mechanics of self-government.

Upon this sound basis these Nationally Certified markets have launched a coordinated drive, applying to the fullest those commercial industry techniques in product merchandising that have succeeded so well in making this country great.

Briefly stated, these techniques or methods resemble those applied to a "brand" product, and hence these markets are now in the process of displaying, demonstrating and advertising their identity and the "brand name of marketing services" they offer to merchandise livestock for livestock owner-customers.

This business and industry of merchandising livestock is a highly competitive and risk-enterprise in an even more competitive economy, but where competition itself is the Nationally Certified market's biggest asset in obtaining productive results where a free choice of marketing channels or services by every livestock owner is a principal essential to the stability of the whole of the livestock industry.

Now let's provide an example: In a typical city or town is a NATIONALLY CERTIFIED market, constructed, developed and operating through the investment of private capital under individual initiative and enterprise with a full sense of the public nature and responsibilities of that business. That typical city's economy is basically an agricultural one. As such, livestock is the largest part of that economy. That NATIONALLY CERTIFIED market is one of the key industries in translating that agricultural economy into the greatest possible productive results in that trade area. It is the cash market whereby the largest dollar payroll is put into circulation in that trade area. It is a bulwark of a stable and thriving economy throughout the trade area it serves.

That market's operations offer the best means of the fair return to livestock owners because those proceeds' dollars go further from the very fact they have suffered "no loss in transit," and go into circulation where they, and the credit they merit, buy more in value than anywhere else.

This is the intangible aspect in economic and productive value you do not see as easily as those features I earlier described for you. It is the most significant and important aspect of the market itself and to all people of its trade area. It is a realistic means through which farmers, industry, and labor are bound together in a sound, progressive and advancing economy for all.

In these terms I ask you to picture these NATIONALLY CERTIFIED markets as a vital exciting, fascinating and productive industry. Each market is an important part of that industry.

Where changing things are so typical of these days in which we live, these NATIONALLY CERTIFIED markets are milestones in changes in marketing livestock.

A great deal of effort is expended in every State and many cities to attract the location of industry to those States and those cities. State industrial commissions are appropriated funds to sell the favorable factors conducive to attracting the establishment of manufacturing plants of all kinds. Legislation in many States has equipped cities and towns with the means of offering sites and favorable tax concessions to these industries.

My own State of North Carolina seems to even have gone further than most to the point of actively soliciting the location of foreign industry from Europe.

It is easy to compare this type of accelerated effort and expenditure to attract new industry with what is being done in your State and mine, and your city and mine, by way of recognition and support for the full development of a key industry already in operation. The comparison is not a favorable one, especially in respect to those industries stemming from agriculture and livestock.

I should like to see offered from this group session a "project" designed upon mutuality of understanding and purpose which would focus citizenship attention on those industries that exist and stem from agriculture, in support of their development to the full potential. In my opinion, these efforts from trade area to trade area would provide the greatest possible service not only to livestock marketing, but to all livestock and agriculture, as well, in those areas.

CONCLUSIONS AND RECOMMENDATIONS

Livestock Work Group

Cooperative efforts by the State department of agriculture, the State statistician, and local people in a State provide an effective approach to the problem of improving livestock data needed at both the local and national levels. The matching fund marketing service program has been responsible for initiating several important categories of livestock data. Both the "cattle-on-feed" and "quarterly pig crop" reports were started as cooperative projects under the program. The States have the responsibility and opportunity to help in bringing about further improvements in these data. There are two avenues for improving the estimates:

- (1) By modifying and expanding the reports themselves, and
- (2) By using more refined technical procedures in collecting and analyzing the data.

Promising approaches include expansion in the use of size-group sampling techniques, and greater use of the interview method of securing data.

Producers and local marketing agencies alike need better marketing information at the local level. Providing this information should be a responsibility of the Federal-State Market News Services. This cooperative arrangement is necessary to achieve comparability in reports. Local livestock marketing agencies have a stake in improved livestock estimates and other types of data relevant to both the short-term and long-term outlook for slaughter livestock.

Work in one State has demonstrated the feasibility of improving supply and price forecasts for livestock and livestock products by the team approach. One team, made up of the economist, the statistician, and the programmer, developed and tested an improved technique for predicting slaughter supplies of hogs. The economists and packer management teamed up to sharpen the analysis of price making factors. More accurate forecasting of supplies and prices helps to establish more orderly marketing and thus benefits the packer, producer, and consumer. The validity of this conclusion was demonstrated in actual practice during 1960.

Use of the voluntary Federal beef and lamb grades has promoted both operational and pricing efficiency in livestock and meat marketing. Standardizing grading of meat has been a factor in a number of marketing changes and shifts which have promoted efficiency and held down costs. These include (1) increase in buying and selling on the basis of description, (2) expansion in the market

potential and procurement territory of suppliers and large-volume wholesalers and retailers, (3) greater specialization in product lines and transfer of processing operations nearer production areas, and (4) increased emphasis on technological innovation and other means of reducing unit costs. Grading has improved pricing efficiency by increasing and tending to equalize the general knowledge of buyers and sellers regarding the attributes and value of the product being traded.

Addition of the "cutability" factor to grade standards for beef would improve their usefulness. Studies indicate that cutability can be estimated in live cattle with a fair degree of accuracy. Experience in a few States has demonstrated the feasibility of applying live grades in the marketing of live-stock. Organizing a sound livestock grading program should be considered by State departments of agriculture as an essential step in building a good live-stock marketing program. Grading is the key to establishing a meaningful and efficient market news system and in bringing about other important improvements in the functioning of the marketing system for livestock and meat. With respect to hogs several packers have developed for procurement purposes their own grading systems based on estimated yield of primal cuts.

The discussions of this group brought out the important factors which workers in State departments of agriculture should apply in assisting livestock marketing agencies with problems of locating facilities. In locating auctions, for example, the factors to be considered are: (1) Livestock concentration, (2) transportation facilities, (3) competition, (4) shifting of trade centers, (5) sociological considerations, and (6) special circumstances applying to each individual case. State departments of agriculture have the opportunity to help livestock market operators reduce several of the elements in their cost structure.

POULTRY AND EGGS

Work Group Sessions

REDUCING POULTRY DOWNGRADING BY IMPROVED HANDLING AND PROCESSING PROCEDURES

John L. Crothers, Jr., Maryland State Board of Agriculture

Experience in new agricultural marketing programs should be shared as quickly as possible to prevent wasted time and effort and to enable marketing personnel in other States to retain positions as leaders and innovators. Statistical quality control has been used extensively in manufacturing plants and food processing industries but is a newcomer to the poultry processing field except where the product is further processed as in the case of soups.

Maryland's study of competitive positions of major broiler areas in 1959 showed quality level and quality control as two principal points being neglected. In the fall of that year, Maryland scored a "first" when a statistical quality

control study on an area basis was initiated with 6 plants on the Delmarva Peninsula to set up procedures for individual plants. These procedures included, (a) characteristics to be studied, (b) frequency of checks, (c) selection of sample, (d) size of sample, and (e) method of measurement, and were tested in determining area quality level and the relative importance of quality defects.

A data sheet was developed and tested in cooperation with Federal-State graders and plant supervisors. The sampling technique of taking every 10th bird on the New York dressed line to obtain a sample of 100 birds from each flock was also developed and tested cooperatively. After the routine was set, the plant manager and grader in each plant were given an indoctrination period to assure uniformity of data-taking. Throughout the study period there was personal followup to check on techniques being used. Data from the plants were then assembled, tabulated, and analyzed.

Results showed that processing plants apparently fell in two groups, one high in undergrades, the other relatively low. But a satisfactory indication of the general quality level and the importance of different quality defects was obtained. There was wide variation between plants, but an average of about one-third of the broilers entering the plants at that particular time of the year were downgraded. The principal defects were procurement bruises, fleshing, breast blisters, and misbled and general discoloration, with bruises accounting for as many undergrades as the other three main defects combined.

Findings were applied generally to the area and specifically to the individual plant and its particular problems. Such information was used to trace defects to their origin (such as bruises to catching crews and rough handling). Trouble spots could then be checked frequently to keep the defect under control.

The first precaution to would-be crusaders on a similar mission is the fact that much time and effort is required. Because of variation between plants, work should be on a plant basis rather than on an area basis. This variation may come from the quality level in the plant vicinity, the quality being purchased, or the human element in grading.

Other precautions are as follows. Sufficient data must be gathered to establish a reliable level of comparison. These data are used as a basis for further quality control work, either in checking overall quality or individual defects at selected points. Data must be taken uniformly and accurately and interpreted correctly.

Management must recognize and be convinced of the need for statistical quality control or the effort will be wasted. Education or indoctrination may help in some instances. State personnel must be well-grounded in techniques to successfully carry on the work and retain the confidence of the industry. This may come either from formal education or individual "boning-up" on the subject. Poultry processing plant personnel must be indoctrinated and trained well enough to carry on unassisted except in the case of special problems.

In spite of the effort involved, both the poultry processing plant and State marketing personnel will be amply repaid in tangible results if statistical

quality control methods are conscientiously carried out. These results will be measurable in terms of improved dressing percentage, pounds, and dollars--not in intangibles such as "a change of attitude."

HAUGH UNITS VS. CANDLING

David M. Bartholomew
Kansas State Board of Agriculture

This topic assignment is worded in such a way as to infer that there is competition between these two methods of egg grading, much the same as we see athletic competition listed between teams. There actually does exist a realistic competition between these methods of egg grading. The new and the old--the exact and the arbitrary. A similar competition is currently being staged in the livestock industry--live grading vs. carcass grading.

What is involved, of course, is an attempt to remove the guess work which is necessarily inherent in shell egg candling and livestock grading. The question is: Have we found a reliable method to remove this guess work? In the egg industry I think we have this method in the Haugh Unit system of grading broken-out eggs. This system, of course, is effective only when applied to a representative sample of a given lot of eggs produced and marketed under rigid standards of quality control. It will never be effective when used on eggs produced and marketed without these controls.

That segment of the egg industry which packs eggs of unknown origin for shell egg purposes will always have to assign a grade to each individual egg by some method, and so far the time honored method of candling has not been improved upon. But this segment is diminishing in relative importance in the shell egg business. It is going the way of Mercantile Exchange, trading, egg brokers, central markets, and the extensive cold storage business.

Of increasing importance is that segment which moves eggs through more direct marketing channels and in which eggs are produced and marketed under strict quality control measures. The result is a product which is extremely uniform in quality and highly predictable when graded. Consequently, there is no need to attempt to make a grade decision for each individual egg if a small representative sample is graded by the breakout test, with stains, checks, bloodspots, mis-shapen shells, and so forth, removed by other methods.

This, then, is more effective marketing, and it enables the grading plant to reduce per unit costs for greater plant economy. Eggs packed under such conditions will rarely have difficulty meeting present quality standards with their tolerances allowed for occasional errors in judgment.

Egg Shows and Contests

In Kansas we have a series of 12 district poultry and egg meetings each winter, in cooperation with the Extension Service. At these meetings we have an egg show and contest. Each producer enters a dozen eggs, which we judge on the basis of quality, general appearance, and uniformity of size, shape, and color.

The winners are eligible to enter a similar contest at the State poultry convention. Here the competition is extremely keen, and it gets tighter each year. We make final placings only after a breakout grading. In this year's show, for example, we ended up with 40 entries which candled all AA and were highly uniform in size, shape, and color. From these we had to select five winners. To make this determination we broke four eggs from each entry and arrived at a Haugh Unit average for each. For the 40 entries in consideration we arrived at averages ranging from 70.00 all the way up to 100.50 Haugh Units. From this tabulation it was a simple matter to select the five winners. These five had Haugh Unit averages as follows: 100.50; 97.75; 95.75; 95.50; and 94.75.

Everyone concerned is quite pleased with our choice of this method for selecting winners in these contests. Without this method, our selection would necessarily be much more arbitrary and open for dispute in judgment.

Comparisons of Individual Eggs

About four times a year we conduct an intensive egg-grading school for our five regulatory fieldmen under the Kansas Egg Law. We are anxious that these men be capable of grading eggs accurately and that they all grade them alike. At these sessions the men try to correlate their grade interpretations with those of our Federal-State poultry and egg grading supervisor.

For the past two and one half years we have broadened these schools to include attempts to correlate candled grade with breakout grade, primarily for our own information. The eggs we have used have been of all grades, both from controlled production and from unknown production.

I must admit that these attempts have been only partially successful. Only occasionally have we been able to achieve as much as 80 percent correlation. More frequently has it been from 60 to 65 percent. These figures are based on attempts to assign the correct grade to individual eggs, and not to specific lots of eggs.

There are obvious reasons for these wide margins of discrepancy. Some of these are as follows: (1) Candled grades are partially determined by yolk position, while breakout grades disregard this factor, (2) many of the errors were borderline errors of just one or two Haugh Units, but were still shown as a wrong answer, (3) the fieldmen were required to assign candled grades by candling standards, even though their breakout experience indicated that they were wrong.

A much higher degree of accuracy has been obtained by these same men when comparing the two methods of grading for lots of a dozen or more eggs. In comparisons of this sort we have achieved accuracy of from 97 percent to 100 percent quite consistently. This includes all types of eggs, from quality controlled production and from unknown production. From this work we can only draw the conclusion that attempts to correlate breakout grading with candling for individual eggs are valuable only for purposes of instruction and can never be highly accurate. But for purposes of assigning a grade to a given lot of eggs, an extremely high degree of correlation can be achieved.

What practical application can be made of this information? You are all familiar with the way it is used in the USDA Quality Control Programs of Fresh Fancy and A grade eggs. In these programs it is being used to a distinct advantage. In addition, some plants which are not on these programs, but which are procuring eggs produced under similar restrictions, are buying and packing eggs on the basis of breakout samples.

However, a practical application of the breakout method of grading for a lot of eggs from unknown production has not yet been devised. The principal problems here are: (1) A much larger sample would have to be broken out in order for it to be representative and this would be too expensive, (2) if the lot were packed for retail there would be a high degree of variation in quality from one dozen to the next.

We in Kansas are pleased to have this new method of egg grading for use on eggs from quality controlled production and marketing sources. We feel it has definite advantages over the candling method, when used properly. Consequently, we are now making the necessary adjustments in our rules and regulations and also our operational methods to permit and promote the use of Haugh Unit grading of eggs where advisable.

DEVELOPMENTS IN FRESH FANCY PROGRAMS, BOTH FEDERAL AND STATE

T. E. Thomson, Minnesota Department of Agriculture

The developments in fresh fancy programs, both Federal and State, may be illustrated by the experiences we have had in introducing our Certified Quality Control egg program in Minnesota during the past two years. Authorization for such a program was included in a revision of the State egg regulations following changes in the egg law made by the 1957 Legislature. These regulations opened the way for a premium grade of eggs which would be produced under specific quality control conditions and under the supervision of an authorized field service.

The new quality control program began on an experimental basis late in 1958, with 32 farm flocks ranging in size from 400 to several thousand laying hens. Further progress occurred following a public hearing in June 1959, when regulations were authorized for official rules and regulations to govern the program. By the spring of 1960, 10 dealers with approximately 180 affiliated flock owners were in the program, together with 26 independent flock owners who market eggs of their own production.

Following the introduction of this State quality control program the U. S. Department of Agriculture instituted a similar program on an experimental basis at one plant in Minnesota. This was one of the many projects put into practice throughout the United States, which in the summer of 1959 resulted in an addition to the Federal egg grading program by which eggs of AA quality produced under specified conditions could be identified as Fresh Fancy Quality eggs produced and marketed under Federal-State quality control programs.

Some features were included in the Minnesota program which gave it a faster start than the Fresh Fancy program. Eggs identified with the Fresh Fancy Quality USDA Shield have to be produced under the same restrictive conditions as the Minnesota Certified eggs but are required to be examined by a Federally employed inspector. This involved the expense of continuous USDA inspection, which in some instances can be divided among two or more adjacent plants. The USDA Fresh Fancy program makes no provisions for regular inspections of production facilities and management practices.

In general the production requirements for Minnesota certified eggs are identical with the Fresh Fancy program, but a flat fee is charged to either the independent flock owner who has a direct market for his eggs or to the dealer who obtains his eggs from participating flock owners. Included in the service furnished by State inspection under this program is the regular monthly farm inspection and the break-outs for measurements in Haugh Units of randomly selected eggs which is the basis of grading eggs under quality control programs.

The State and Federal programs require an introductory examination of at least 25 eggs which must measure 78 Haugh Units average for the Minnesota program, 76 for the Fresh Fancy program, and both programs require no less than 74 Haugh Units average on a continuing basis, with two eggs selected at random from each case sampled. This type of grading authorizes the use of flash candling to detect interior and exterior defects and accepts eggs produced under required housing and management conditions as being Grade AA when kept under refrigeration and delivered to the final consumer not more than 10 days from the date of break-out examination.

Minnesota found it necessary to make a change in egg grades to permit the identification of such eggs as Grade AA large or medium. Rechecks of eggs offered for sale under this program at food stores indicate that the program is sound and that eggs produced and marketed according to the requirements of this program will retain AA quality for the 10 days permitted for store sale, even in hot weather. A large proportion of eggs produced under quality control programs are marketed by food store chains, both local and at distant points, under name brands rather than as Fresh Fancy or Certified, although one or the other of these identifying marks is sometimes used in conjunction with the name brands.

In general, not only the quality of eggs for local consumers is improved, but prices received by all egg producers in localities where a quality control program is in effect are usually several cents per dozen higher than prices received for eggs not under a quality control program.

The following schedule is suggested as a guide in setting up a successful quality control program:

1. Obtain authorization for the program by State laws or regulations and provide for the financing of its enforcement.
2. Determine egg quality on a flock basis rather than on individual eggs by establishing a break-out program of inspection, supplemented by flash candling to remove bloodspots, watery whites, unsatisfactory shells, checks, dirties, and any other illegal eggs.

3. Contract with independent flock owners and dealers with participating flock owners who will take the necessary steps for providing minimum equipment and management practices in egg production. These will include:

- a. Confined hens in properly constructed housing.
- b. A balanced feeding program to produce reasonably uniform color yolks.
- c. A minimum of 3 egg gatherings a day.
- d. Mechanical cooling to 50°-60°F. and 70 percent humidity, with eggs packed in precooled cases.
- e. No hens older than 20 months.
- f. Acceptable sanitation practices.

A necessary part of the enforcement program will be a requirement to date all packaged eggs with a 7-day limit in food stores or 10 days from the time the eggs are inspected by the break-out method until they are removed from sale or the premium grade label is replaced by that of a lower grade. It is necessary to have required refrigeration not to exceed 60° F. from the time the eggs are removed from the laying house until they have been purchased by the consumer. Adequate inspection at the retail level is a definite necessity.

ACHIEVING UNIFORMITY IN GRADES AMONG STATES

J. F. Firth, Sr.

New York Department of Agriculture and Markets

Historically, many States adopted their own standards, grades, and inspection procedures for eggs, the primary purpose of which was to protect the consumer, assure the producer a fair price for the quality he sells, and to establish a dependable basis for trading. Also, their adoption was not so much an effort to prevent fraud in the sale of eggs as it was an effort to improve the reputation and market position of said State's eggs.

However, the difficulty of correlating the various terms contained in these grades gave cause for "grief and aggravation" to the trade, particularly in long distance transactions. It is well known that the needs of the trade are such that standards must be just as good in Maine or in California as in New York.

To some, these are hindrances to orderly marketing--others, feel they are built-in trade barriers and immediately start thinking of retaliatory measures.

For example, when out-of-Staters are packing eggs for shipment into a State that has a particular grade and quality specifications which are higher or pointedly different, they must change their established grading methods to comply with those standards. The U. S. Department of Agriculture regulations state that you must pack to comply with the requirements of the State into which you intend shipping your eggs. Oftentimes, out-of-Staters do not know when their eggs are packed whether they are going into a State with different standards, and if they do, they are in violation of said State's existing egg law. It does not make for free and easy merchandising.

In all fairness, however, I should say that this is far from being a complete statement of what is right or wrong with nonuniform grades. Under modern competitive conditions in our large cities, the key to successful merchandising of almost any farm product is to be found in placing on the market a steady and continuous supply of that product, packed so as to be always uniform, dependable and branded so as always to be easy of identification, including nationally recognized grade labels.

Now, I should mention here that the need for a unifying force in the development of national grades and standards has meant that the Federal Government has taken a leading part in the work of achieving uniformity in grades among States.

We all know the development of market standards for shell eggs requires the application of measuring techniques such as, interior factors, exterior factors, and the evaluation of such factors in the minds of buyers and sellers.

And, we all know that a common language must be facilitated--understood and used in local and long distance transactions with confidence.

The U. S. Department of Agriculture Handbook No. 112, entitled "State Egg Laws and Regulations" states that "The desirability of promoting uniformity in standards and grades for shell eggs is indicated by the fact that in 43 States the standards for the interior quality of individual shell eggs were the same as or very similar to those of the U. S. Department of Agriculture as promulgated in 1952 and 1955."

Perhaps this discussion of my subject has been too brief or repetitious to be enlightening, but I also want to discuss a related subject--the work procedure in enforcing egg laws among States--from the inspector in the field making his inspection and filing his violation report, to office procedures, including penalty action. To attain uniform egg laws among States would be quite a job. There are just too many factors involved, including local pride, custom, markets, and in some States special acts of legislature. Nearly every State has an egg law, the enforcement of which may be just adequate or just tolerated. However, I say let's do what we can with what we have. Nearly every person with whom you discuss egg laws agrees that the primary purpose is to protect the consumer. At every gathering of egg people we hear "Mrs. Housewife must get 12 good eggs in every dozen she buys, and the eggs should be of the grade and size which the advertised label claims."

If this is so, then we believe that the final determination of compliance with the law shall be on the basis of inspection for grade and size at the retail level. Producers must pack to allow for "shelf-life" and retailers must provide for maintenance of quality through proper refrigeration and handling requirements.

There are two definite attitudes towards enforcement--regulation through education and quite plainly "in business to collect fines." We in New York State feel that a good working relationship between industry and regulatory people can make a law a lot more effective.. Also, the public interest can best be served by working to prevent violations rather than waiting for them to occur.

Let's start with the man in the field--the inspector. He seeks out management, identifies himself, and reveals the purpose of his call. Then he checks window advertisements, banners, signs, and so forth, for misleading statements or for noncompliance in marking requirements. He also inspects the egg display case to see that the various brands sizes and grades are correctly marked. He then segregates a lot for which he takes his representative sample to candle and grade against the grade labeled. Some State laws consider a one dozen carton to constitute a lot. New York law is one. I've had a retailer or two tell me that he had paid a \$25 fine for one cracked egg in a carton marked Grade A. True or false, I do not know, but personally although that is "kinda rough" it is both technically and legally right. However, I can say that we in New York don't do it that way.

After the inspector has candled and graded the samples, he finds that all are out of grade, or for the sake of discussion, 8 of 10 cartons are out of grade. The problem now is do we throw the whole lot of 100 cartons displayed out of grade, or just the samples inspected? The inspector must make that decision. He advises management that on the basis of enough samples taken, the whole lot is out and cannot be sold under the present grade label. After the cartons are rebranded and/or returned whence they came, the inspector has management sign his inspection report which indicates that the management has been advised of said infraction. This report is now mailed by the inspector to his office for further processing, including penalty action.

ACHIEVING UNIFORMITY IN GRADES AMONG STATES

Lester Kilpatrick, AMS, U. S. Department of Agriculture

Since one of the reasons for our being here today is the Agricultural Marketing Act of 1946, it seems appropriate to review the intent of Congress as it touches on the subject I am to discuss.

The intent of the Congress in enacting the Agricultural Marketing Act of 1946, regarding this subject, was quite clearly stated. Section 202 of the Act states in part, "To the maximum extent possible market information, inspection, regulatory work and other marketing service done hereunder in cooperation with the State agencies shall be done in cooperation with the State Departments of Agriculture and State Bureaus and Departments of Markets."

Section 203 directs and authorizes the Secretary of Agriculture to develop and improve standards of quality, condition, quantity, grade, and packaging, and recommend and demonstrate such standards in order to encourage uniformity and consistency in commercial practices.

Insofar as our discussion today is concerned, the key words are "uniformity" and "consistency." With regard to uniformity in standards and grades for eggs, the situation is somewhat the reverse of the old saying about the weather--much has been done in recent years, but too little of it has been in the direction of uniformity.

I believe it is a true statement that the impetus behind the development of State egg laws was of a dual nature. The primary impetus was based on the premise

that assurance of good quality at the retail level would improve the returns to the producer employing good farm practices. In many instances, however, pressure from producers within a State resulted in regulations which served only as trade barriers. It is not my purpose to discuss the merits of regulations such as those dealing with State-of-origin labeling. I will confine my remarks to those regulations which deal with standards and grades for eggs which may or may not have had their origin based on a desire to create a trade barrier, but regardless of origin serve to do so.

During the years since the development of the first State egg laws in South Dakota, Iowa, and Illinois in 1919, all of the 48 States in the Continental U. S. have established standards and grades for shell eggs. There have been many different descriptions in these standards for determining the relative interior quality of eggs on the basis of candling. In the final analysis, these differences have not resulted in forming trade barriers because the final determination was based on a subjective measurement and, despite differences in the standards, the interpretation of the interior quality was reasonably uniform. This uniformity was a result of State and Federal agencies regularly getting together before a candling light and comparing sights.

Achieving uniformity in grading is not possible where specifications capable of being objectively measured are used unless the specifications are identical. The air cell definition was a prime example. Much difficulty was experienced when some States did and some did not follow the change in the U. S. Standards which permitted some movement in the air cell. Another example relates to egg weight, which can be measured objectively. Several States have set the minimum individual egg weight at a level higher than that in the U. S. Standards and that in the standards of some of the other States which are major shippers. This has created a situation where the packer at the shipping point is forced to pay the producer at the rate for large eggs for all of the 23-ounce eggs and yet must sell them in the Eastern markets as mediums. You can readily see how impossible it is to correctly interpret prices at the different levels when such a situation exists.

Now we are moving into another phase of egg marketing where interior quality is basically being determined by an objective test. The Poultry Division is firmly convinced that this type of program offers a more effective means of assuring a satisfactory product at the retail level than quality programs based entirely on candling. The industry should not expect, however, that this new program can do other than supplement the conventional method of determining quality for some time to come. It must be fitted into the marketing picture on a gradual basis as more commercial production develops.

Everyone recognizes the desirability from a merchandising standpoint of having product priced at different levels. We believe that the best interest of the egg industry will be served when we reach the point where we will have one quality to offer the consumer, and weight rather than quality, is used to serve the need for different pricing levels. When we reach this point, the egg processing field will be able to effectively utilize the shell eggs not of table quality.

Several States have developed or are in the process of developing quality control programs for eggs. Not all of them agree on the "breakout" requirements. Since these tests are objective, the programs are bound to result in trade barriers unless agreement is reached on uniform requirements. Such programs developed and coordinated on a cooperative basis between voluntary and regulatory agencies, as was envisioned by the Congress in 1946, will, in the long run, result in the highest return for the egg producer.

Mr. H. I. Miller, Director of the Poultry Division, has asked that I convey to you his earnest desire to cooperate with all State agencies in working toward the establishment of uniform regulations for poultry and egg products.

REGIONAL COORDINATION OF MERCHANDISING EFFORTS

Ewell P. Roy, Louisiana State University

The total demand for food is said to be relatively inelastic because: human stomachs can hold only so much and people after a certain income level buy selectively. Except for "pockets" of undernourishment in certain racial groups and/or very low income groups, we have reached a high level of food consumption both total and per capita.

Normal population growth represents the main avenue of expansion of total demand for food plus some type of "stamp" plan for undernourished groups. Another avenue is perhaps capturing some of the discretionary buying power of higher income groups for selected food items.

Still another avenue is "robbing Peter to pay Paul" in the sense that we can get consumers to eat less beef, more chicken; more apples, less oranges. Or, fewer Iowa eggs, more Louisiana eggs, etc. In an economic sense, a lot of this shifting is selfdefeating.

The basic problem remains of how much do promotion efforts result in a net increase in consumption of farm commodities. Evidence so far indicates that it is very little. If this is so, then agriculture as a whole has gained nothing and perhaps lost. Advertising agencies (Madison Ave.) have gained the most.

But let's take a look at the economic principles involved in the merchandising of a single agricultural product. Unlike total demand, individual demand for farm products is often relatively elastic. Substitution is rampant between and among foods capable of satisfying the same food need or desire. For example, as meat dishes can come from beef, pork, lamb, chicken, turkey, eggs, cheese, fish, or game.

Eggs, we have always assumed were of inelastic demand, because there were no available substitutes. Recent experience has forced us to reconsider our theory. Eggs are substitutable in the sense that "time," "cholesterol," and "coffee breaks" are variables, and "cereals" are a somewhat logical substitute, real or imaginary.

If it is true that the "cholesterol" scare, "coffee break," and Jack Paar have caused a decline in the demand for eggs, then one can argue that promotional and merchandising efforts can bring some of it back. But, in my opinion, research into new uses and forms of egg products would bring it back higher and quicker than simply promoting and merchandising the shell egg. It was only a few months ago that PENB first gave its attention to new egg product development. Could it be that we should have moved faster in the proper direction some years ago?

But, there are several problems in the field of promotion and advertising. About 1,100 groups in the U. S. are now doing promotion work. Many of these programs emphasize just "eggs" with some producers contributing through PENB and the National Egg Council, but as many are not contributing at all.

Those that contribute are being unfairly exploited because their money is spent for advertising eggs generally, and not theirs specifically. Those that do not contribute get a free ride in the sense that promoting all kinds of poultry and eggs indirectly helps them.

This same unfair allocation of resources exists among packers, processors, feed mills, etc. If I were a poultry and egg producer, I would resist all attempts at promotion of poultry and eggs generally saving my money until such time as all producers and/or all vested interests in the poultry and egg industry likewise contributed. Also, I would prefer to use my own money in promoting my own "brand."

There is still another problem. Poultry and egg promotion within a State for a State is not always economically sound, depending on the "surplus" or "deficit" position of that State. If we in Louisiana promote just "eggs," we would be promoting Midwestern eggs since Louisiana produces only 1 out of 3 eggs eaten in Louisiana. Some say we should promote "Louisiana" eggs only, yet it is my belief that each producer and/or packer organization in Louisiana should promote its own "brand" before promoting just "Louisiana" grown eggs.

It seems to me that we now have come to the point where marketing orders and agreements appear necessary not only on a State basis for those States that desire and can profitably use them but also for two or more States, whole regions and perhaps the Nation as a whole.

My thesis is this: If promoting poultry and eggs generally is agreed to be necessary, and it could well be, then each producer, packer and vested interest should contribute through the mechanism of State and/or Federal marketing orders. Why?

There are several reasons:

(1) Proper referenda outlining alternatives would be voted upon by those concerned.

(2) Producer groups and industry groups democratically elected through referenda would handle the promotion and merchandising.

(3) Provisions for termination of the order would be provided upon referendum.

(4) Budgets, assessments and programs would be more equitably drawn, executed, and analyzed.

(5) National advertising through TV and magazines could be achieved. Present efforts of people and media conducting promotion of poultry and eggs for free could be continued.

(The rest of Mr. Roy's discussion dealt with Senate Bill 2516 of the 86th Congress).

TAILORING COMMODITY PROMOTION TO SPECIFIC MARKETS

Rex Parsons, Washington Fryer Commission

Out in Washington State a most practical and definitive effort to solve a specific marketing dilemma has been taking place in the past three years. Let me briefly outline it for you.

With the growth of tremendous quantities of commercial broiler-fryer chickens throughout the Nation in 1954, Washington broiler producers began to feel terrific competitive pressure from chickens that were imported 2,000 miles or more into their heretofore isolated market. Seattle became somewhat of a dumping ground for surplus broiler-fryers.

From 1954 through 1956, the Washington fryer industry went into a decline. Hundreds of fryer producers were forced out of the business. Many small and a few larger processing plants were forced out of business. A relatively small handful of forward-looking leaders of that industry decided to organize to improve their marketing situation. An active association of fryer producers was formed. This association petitioned the Director of Agriculture to create a Washington State Fryer Commission to promote their products and return them to a position of importance among food retailers and consumers.

The Director's marketing order for fryers, broilers and roasters established the Commission on April 15, 1957. The Commission was organized during May of that year. I was employed as manager of this commission in June 1957. The marketing order set forth four areas of responsibility for the Commission: To advertise and promote Washington grown fryers; to develop research which would aid marketing and production of fryers; to work to establish standards and grades and create labeling as necessary; and to work to prevent unfair trade practices.

The first step taken was that of individual consultations with grocery executives and poultry processors. This should always be the very first step taken in any commodity promotion effort! You must first of all have an understanding of what is needed on the part of the people who are going to see that your agricultural commodity gets to the consumer.

Even as early as September 1957, there were indications that a local commodity promotion job such as contemplated by the Washington Fryer Commission could be successful. In fact, there has been from that time a steady improvement in the overall fryer market situation in Washington.

The Washington Fryer Program

The success of telling our local story on a statewide basis, to grocers and consumers alike, proves that all business is local. In turn, it shows that, recognizing its local nature the promotion was successfully tailored to the specific market.

How did the Washington Fryer program develop? First, we realized that a device for recognition in the market would be essential. If you are going to call attention to a product you should create a brand name or a point of difference that immediately sets the product apart from others like it.

The Washington State Fryer Commission under authority granted within the Agricultural Enabling Act, proceeded to draft a labeling regulation. This regulation required that all fryers sold at retail within Washington be identified as to the State of origin. This regulation provided the consumer an opportunity to determine a local fryer from one that had been transported from out-of-State. The consumer thus had a chance to make a choice.

Having created the point of difference, the Fryer Commission began intensive advertising programs encouraging and educating the Washington consumer to "always look for the label." Response to this type of advertising has been most gratifying. In our recent consumer study it was determined that 53 percent of greater Seattle area consumers stated a definite preference for Washington grown fryers. More than 71 percent of the respondents were positive that the last fryer they purchased had been grown in Washington.

Analyzing The Market Challenge

While this ambitious consumer advertising program was commenced, a less costly but just as intensive and far more important campaign was conducted among the advertising retail grocers. A rule of thumb in the food promotion business seems to be that you spend 90 percent of your promotion budget to reach the consumers and 10 percent of it to tell the food trade what you are doing. In my mind, the 10 percent properly spent, is more important in the pioneer phases of a promotion than is the actual consumer communication.

"There are four basic methods of reaching the retailer: Through trade publications, by direct mail, indirectly through consumer media, and by direct personal contact." In Washington, all of these methods have been used intensively. Individual meetings were held with each of the advertising retail chains or groups as well as with large independent supermarkets to acquaint them with the provisions of the new labeling regulations.

Three weeks after the issuance of the labeling regulation, the fryer Commission mounted its first promotional campaign. Complete merchandising kits bearing newspaper ad reprints and samples of point-of-sale material were taken to each advertising retailer. Advertising mats were made available to each retailer. Tie-in ads were encouraged. A few advertisers accepted the opportunity to promote Washington grown fryers. Retailers tell us ads on fryers at low prices usually boost volume by 400 to 500 percent.

In the first 10 months of the commission operation, 3 outstanding advertising campaigns were conducted. With each succeeding campaign more grocer support was obtained. By the fall of 1958, after 14 months of operation you could find general acceptance on the part of all major retailers.

It was estimated when the Fryer Commission program started that Washington was producing only about 70 percent of its fryer requirement. This was computed on the basis of 1956 and 1957 production. During 1958, 31.8 percent more fryers were raised in the State of Washington than during the preceding year. All of this production was readily taken and moved at retail and even more birds were needed.

Results Are Measurable

The marketing situation became so favorable that considerable over-production resulted early in 1959 and for a time our market prices were depressed while local surpluses were worked off. However, the producers in Washington began to make adjustments and by the close of 1959 there was a much more stable situation in the fryer market. Such has been the case all during 1960. In fact, for most of the year our supplies have been just a little short of full demand. Consequently, Washington has enjoyed the highest live fryer prices in the United States. In this connection it is interesting to note that our wholesale price quotations have averaged four to five cents above the quotation on imported, ice-packed, whole-drawn fryers.

In the same manner, producers have benefited as their on-the-farm returns have ranged $2\frac{1}{2}\text{¢}$ to 3¢ better than on-the-farm prices in Arkansas. Generally, Washington producers believe that because of transportation costs on dressed fryers that, at least a 2¢ per lb. differential should be maintained at the farm level. For most of the past three years the Washington farm price has averaged more than 3¢ over the Arkansas live price. Arkansas is typically used in this comparison because it is the nearest broiler exporting State.

In fact, during 1959, the average price differential was 3.75¢ per pound. During that year the lowest monthly price differential was 2.16¢ in January. The highest monthly differential was 5.47¢ in September.

A Close Look at Advertising Planning

The Washington Fryer Commission has used all media in its successful advertising program. There are a few distinctions about this programing that are frequently cited as exceptional in concept. The basic philosophy has been to expend the major portion of our advertising funds during the months of low per capita fryer consumption.

This practice allows us to build to a climax of advertising impression just prior to the best selling months of the summer. Then, as soon as the annual fall slump occurs following Labor Day weekend, an intensive promotional period is undertaken lasting through the early part of December. There is, of course, continuity of advertising all summer to encourage additional consumption and, also, to encourage the inclusion of fryers in summer meal planning, particularly, in barbecues and picnics.

A cyclical approach is used in the fryer commission programing. Traditionally, broiler-fryer prices tend to strengthen right after the first of each year. This we think poses a problem with consumers inasmuch as they may balk at the sign of higher retail prices. Accordingly, we put in some advertising and new point-of-sale material commencing in January and building to a climax in February. During February we have what we call our "holiday" promotion in that we particularly capitalize on Valentine's Day and Washington's birthday. This latter day is a natural for our State.

Next, we jump into a rather intensive "spring chicken" campaign which plays big upon the family-favorite idea for fried chicken. This particular campaign lasts through Memorial Day. During the summer months we use a general "easier living" theme. Also, we pay strict attention to the fact that most of our population is mobile during the good weather months in Washington. Usually, our summer media expenditure goes into outdoor advertising or a radio spot saturation campaign. Prior to the Labor Day weekend we try to do an intensive job of store decoration with point-of-sale material. Toward the end of September we introduce to the processors and retailers our plans for what has become our annual "Bake-A-Fryer" campaign. The idea of this entire campaign is to encourage the oven-method of chicken cookery. We do our most extensive recipe development and food pictorial presentations in conjunction with this campaign. Heavy newspaper advertising schedules and numerous point-of-sale materials such as recipe hand-outs are employed for this campaign.

While we do emphasize these major cycles we have been able to have sufficient budget to maintain continuity advertising on radio, television, and in the newspapers, particularly within the food section of the newspapers. This continuity advertising takes the general theme of appetite appeal. An important facility for this particular work is the use of a special FM radio broadcasting station that specializes in delivering background music and commercial messages to approximately 200 of the top supermarkets in western Washington. Much food information as well as hardsell announcements are issued to the consumers over this network.

Now let's take a special look at tailoring poultry promotion to specific markets nationally. Let us start by recognizing that we have what has become a chronic surplus production situation in commercial meat-chicken. Perhaps some economists would disagree with me but it does not appear that we have an inelastic situation in broiler-fryer marketing at present. That is, I believe we are currently moving 12 to 15 percent more of these birds this year than we did last year.

Retail prices are very low. But, consumers seem to be taking advantage of this situation and are consuming more chicken than ever before. How many years this condition of the market will persist is unpredictable but promotion must be considered as essential from two standpoints: Based on our consumer research we are convinced that consumers still are not using as many broiler-fryers in their diet as is reasonably possible. Seattle area consumers generally serve fryers two or more times per month. Only one third of them serve fryers one or more times per week. Promotion can increase this consumption particularly in what is now considered the off-season for chicken sales at retail.

Secondly, it seems reasonable to take the view that the expansion of the commercial broiler industry must slow down and that a more stable type of growth will prevail. However, even with a more stable condition, prices probably will tend to alternately firm and soften. It is my opinion that American consumers will balk whenever fryer prices become too strong too quickly at retail because they have gone through so many years of conditioning on extremely low retail prices. Advertising is one means of overcoming price resistance.

National Promotion Must Have Local Follow-Through

I do not consider it sensible to simply proclaim, on a national basis, that consumers should eat more chicken! Funds that are being collected and will be collected relative to the promotion of chickens should first go toward an analysis of the distribution pattern of the commodity, some seasonal statistics on movements, toward developing a working personal relationship with major food retailer organizations, and a very personal relationship with food editors and food publicists in major metropolitan markets.

Then, in addition to employing field merchandisers and representatives, communications must be established through poultry jobbers, distributors, and wholesalers to relate them into the vast network of promotional effort. These commercial marketing people should be recruited to bring pressure to bear on commodity movement on short-term cycles. Coordination of major metropolitan promotional efforts of broiler-fryers can be the means to actually showing an acceleration in commodity movement so as to "clean up the market" and relieve a short-term surplus situation.

This would be a vast undertaking. But, it can be done. It can be done if it is started on an intensive localized basis in perhaps just one region of the United States. Region by region the key metropolitan markets may be mapped and charted until coordination of marketing movement is achieved.

It is probable that general recipe releases and advertising in national periodicals can educate the consumer and encourage additional chicken and egg consumption. I believe that this is the long, slow route. I can envision the possibility that if a huge coordinated marketing program such as I suggest were created on a national basis we might also be taking a giant stride toward a stability of production. Such production being attuned toward seasonal demands and long-term dietary changes, either up or down, relative to chicken consumption.

Let us take a look at recommendations for this national-local poultry and egg promotion. You can be sure that I feel brand name promotion is important. A successful brand promotion increases consumer acceptance and is a natural vehicle for encouraging a variety of uses of a product so that more of it can be included in the consumer diet.

Another idea on tailoring local promotion for eggs is that a national board for egg promotion should attempt to create the idea of "legs for eggs." That is, they should work to actively enlist the egg handlers in each metropolitan market to do a merchandising and advertising tie-in program with local retail advertisers. Personal contact of retail grocery egg buyers could produce results in

moving surpluses at times of peak seasonal production. Such contact can do a lot to overcome price resistance when it occurs during the egg marketing cycle.

Point-of-Purchase Merchandising Ideas

In the case of poultry meat I would petition that we return once again to some study of the possibility of emphasizing as distinctive products, broilers, fryers and roasters. Individual packaging by weight and classification under brand name or commodity promotion can achieve greater consumer recognition. You are probably aware of many merchandising experiments at retail that tend to indicate there is a direct correlation between the amount of shelf space of a product and the amount of total sales. Without going into the details of possible variations on this correlation, I think it is axiomatic that if we have more types of poultry meats offered at different price ranges in attractive packages, then we are going to have an opportunity to see more tonnage of poultry meat. More lines offered, more often, in more stores mean more sales.

Additional merchandising material must be supplied to educate consumers in proper methods of preparation and proper recognition of each of these types of poultry meat. I have not called attention to stewing hens in this respect and perhaps I should offer some apology. In my mind stewing hens are so much a byproduct of the egg industry that I tend to overlook them when I am thinking of commercial meat-chicken. However, their offering should be done on a similar merchandising basis as above and certainly continued editorial emphasis on their inclusion in consumers' diets should be mandatory.

NORTH CAROLINA'S NEW PROMOTION PROGRAM

Carl H. Tower, North Carolina Department of Agriculture

In 1959, North Carolina produced 4-3/4 million cases of market eggs, or 7th place in the Nation. In 1950, our production was 3½ million cases. During this period, the production of market eggs increased by 1,275,000 cases or 36.4 percent. Since North Carolina's population was approximately 4 million people in 1950, it was necessary to import approximately 1 million cases of market eggs to supply a per capita consumption of 400 eggs. In contrast to this period of a deficit production, by 1959 North Carolina had become a surplus producing State and one that is exporting eggs to out-of-State markets. Also the per capita consumption of eggs has declined from 400 to that of 327.

Much of the credit for the expansion in market egg production and marketing programs must be given to the passing and enforcing of the North Carolina Egg Law. This law is primarily a labeling statute designed to give the consumer assurance that the quality of the eggs offered for sale is in accordance with the grade and size as designated on the display sign, egg case or carton. Eggs that are not sold according to grade and size must be sold as ungraded eggs. The United States Department of Agriculture Standards, Grades and Weight Classes for Shell Eggs is used as the basis for determining quality with final determination being made by hand candling. The act provides for distributor certificates to be issued free of charge by the Commissioner of Agriculture. Each distributor pays two cents for each 30 dozen eggs sold with the exception that eggs sold to

out-of-State markets or other distributors are exempt. The fees collected are used by the North Carolina Department of Agriculture for the purpose of carrying out the provisions of the egg law.

To meet the demands of larger retailers for adequate supplies of quality eggs, producers realized that they must pool their eggs. As a result of this pooling effort, 17 varying types of producer associations have been formed with a variety of contracts most of which provide for some kind of integrated agreement between the producer and the cooperative, feed dealer, or egg distributor. The egg associations by means of group meetings and strict rules and regulations are improving the quality of eggs packaged at the plant and on the farm. This practice has been most helpful in supplying quality eggs direct from the producer to the supermarkets and then to the consumer.

Demand for quality eggs has placed the producer and producer groups in a position of desiring assistance in grading and packaging quality eggs. Through egg quality schools held in cooperation with county agents and teachers of agriculture, it has been possible to give producers technical assistance with their grading problems. At the schools, candling lights are set up to give those attending an opportunity to candle eggs according to grade standards. Last year we held 20 grading schools in 18 of the 100 counties in our State.

The North Carolina Poultry Council and the North Carolina Egg Processors and Packers Association are statewide organizations that are working directly with the egg promotional program. The North Carolina Egg Processors and Packers Association is a recently organized group as of April 15, 1960. This group was organized to encourage and promote all phases of the egg and poultry industry, both production and marketing, and is planning to work with the Poultry Council to assist them with their egg promotion program.

Members of the Poultry Council realize that considerable funds are needed to develop and effectively operate a successful and effective marketing program. With this thought in mind, the president of the Poultry Council set up a meeting inviting representatives from all segments of the poultry industry as well as the State Grange, Farm Bureau, State College and the North Carolina Department of Agriculture. At this meeting it was decided that an Egg Referendum should be held and a committee was appointed to formulate the referendum and make other necessary arrangements required by law to legally hold such a vote. Arrangements for holding this vote were cleared with the North Carolina Board of Agriculture and the State ASC office.

Briefly provisions of the Egg Referendum are:

1. The proposal would authorize poultry processors to collect one cent for each hen commercially dressed in North Carolina to support the egg promotion program of the North Carolina Poultry Council, Inc.
2. The assessment will be collected by the poultry processors and remitted each month to the Commissioner of Agriculture.
3. All producers of eggs including hatching eggs are eligible to vote.

4. Monies collected under this proposal will be used for promoting North Carolina eggs in advertising and consumer education programs, and for maintaining an office with an executive secretary for regularly promoting and representing the North Carolina egg industry.

The Poultry Council thought it advisable to appoint a committee consisting of five members of the council and an exofficio member of the State College and North Carolina Department of Agriculture to serve as a study group to discuss proposals for enacting the North Carolina egg marketing program. This committee is studying and considering the following as avenues of approach to adequately carry out an effective promotional program:

1. Programs with supermarkets.
2. Programs with chainstore councils, restaurant associations, bakery associations, food handlers, and similar groups.
3. Programs of national scope, such as March Egg Month with Poultry and Egg National Board.
4. Programs of spot advertising with mass media, such as television, radio, newspapers, and magazines.
5. Merchandising programs through seal identification of high quality North Carolina eggs.
6. Cooperative service and consumer educational programs with N. C. State College and North Carolina Department of Agriculture.
7. Newsletters to inform egg producers of activities.

In summarizing this discussion the following points are important:

1. Egg promotional programs are needed to increase the present 327 per capita consumption.
2. Promotional programs should not attempt to promote eggs by themselves but rather through the use of recipes, by coordinating the use of eggs along with other foods, further studies are needed stressing the food value of eggs and discovering new ways of preparing eggs as well as new dishes containing eggs.
3. Good breakfasts should be encouraged, many people go to work without breakfast, depending on the morning coffee break.
4. Newsletters or other printed materials are a must as a media to inform producers as to what, why, where and when.

EXPORTING POULTRY AND POULTRY PRODUCTS

David L. Hume, FAS, U. S. Department of Agriculture

Poultry and eggs have accounted for about 10 percent of the annual gross income on the U. S. farms in recent years. The total value of all poultry and eggs produced in 1959 was a little over \$3 billion, constituting the third largest source of income for U. S. farmers. This sum is lower than in other recent years because of lower prices in 1959. It is considerably below the record of nearly \$4 billion in 1951.

U. S. poultry production ranks among the most efficient industries in animal agriculture. About 7 percent of all U. S. agricultural labor is used to

produce poultry products. Poultry feeding comes closer to laboratory standards of nutrition than for that of any other class of farm animals. As a result, commercial producers now produce a pound of live broilers, on the average, with about 2-1/4 to 2-1/2 pounds of feed, and a pound of live turkey with about 3 pounds of feed.

This degree of production efficiently combined with further efficiencies relating to large-scale operations, enables the United States to sell the highest quality poultry at very reasonable prices. U. S. exports of poultry and poultry products in 1959 reached a total value of over \$60 million, up from only about \$29 million in 1954. In 1959, our figures indicate that about 125 million pounds of poultry meat products were exported, of which 70 million pounds were broilers. This quantity of broilers is equal to total U. S. production for an entire week. You might ask yourself what would happen to the price if the U. S. market were required to absorb this 70 million pounds? Its influence on the price would at any given time, of course, depend on whether it were piece-mealed into the domestic market over a period of a year or whether it were forced in rather rapidly. It is, however, fair to conclude that the annual disappearance of 70 million pounds of broilers in a period of a year brings considerable price benefit to broiler producers. Broiler exports are even more significant considering that broiler exports moved from 24 million pounds in 1958 1/ to the 70 million pound figure in 1959.

During the early 1950's we had considerable turkey export business into Canada. U. S. turkeys were eviscerated while at that time Canadian turkeys were still marketed to consumers largely in New York dressed form. U. S. eviscerated turkeys increased in movement into Canada until the peak year of 1956, when the quantity went to about 12 million pounds. In 1957, as a result of increasing domestic production and a support program, Canada placed what amounted to an embargo on U. S. turkeys. The loss of our then best turkey customer brought total U. S. turkeys to less than 3 million pounds. In 1958, they increased to about 5 million pounds. Last year they had increased to 12 million pounds and we estimate in 1960 total turkey exports will reach 25 million pounds. Now the major export market for U. S. turkeys is West Germany, which to date has accounted for 59 percent of this year's total exports.

The United States supplies about 40 percent of the total poultry meat moving in world trade, which consists of about 325 million pounds. Among our most important competitors in the poultry meat field are the Netherlands, Denmark, Poland, Hungary, Yugoslavia, and Bulgaria.

Exports of shell eggs can be characterized with the term erratic. While we export a few shell eggs to many different countries, by far our most important customer is Venezuela. From time to time we export important quantities to Canada, Mexico, and to the Caribbean area.

The U. S., however, is basically a residual supplier, which means that our shell egg export sales result from customers seeking us out when they need us, rather than from any out-going sales program of our egg industry. If and when

1/ Broiler exports not reported separately until 1958. However, total fresh or frozen chicken exports totaled 25 million pounds in 1956.

egg prices become more stable than they seem to be during the recent era, we don't see why U. S. exports could not be expanded substantially. The U. S. has enjoyed a considerable increase in dried eggs exports over the past few years, and our frozen eggs are receiving considerable attention. The variety of poultry food products--soups, pies, dinners, precooked frozen poultry, boneless meat products, formulated egg products--is unequalled in any other poultry-producing country.

Wholesale and retail distribution in foreign countries is developing rapidly. Larger volumes of perishable poultry products are now handled more efficiently. In West Germany, there were only 5,000 freezers in retail stores in 1956, but the number had jumped to 30,000 by mid-1960 and is still rising. Seventeen percent of the 170,000 German retail stores are now able to sell frozen foods; however, the per capita consumption of frozen foods in West Germany is still only 1.08 pounds compared to 61 pounds in the United States. Just think of the potential growth which our industry should share in: Ten years ago few homes in Great Britain had a freezer; now at least 15 percent have.

The U. S. Government does not itself do any selling abroad. The cooperation, therefore, of the poultry industry with the U. S. Department of Agriculture is designed to encourage and to support private business to carry out its own sales program. A major responsibility of the Foreign Agricultural Service is to help the poultry industry develop foreign trade.

While opportunities for expansion are great and there is every reason for us to expect continued growth, there are many deterrents which continually challenge our ingenuity. These are what we refer to informally as "man-made barriers." For example, the turkey story referred to earlier when Canada placed its embargo in July 1957. Prior to that embargo, Canada had been our customer for about 12 million pounds of U. S. turkeys annually - our very best turkey customer. It took only a signature on a piece of paper to put this embargo into effect and in that instant, 100 percent of our previous turkey business with Canada stopped cold. This embargo has been lifted and replaced by another arrangement which permits some U. S. turkeys to move to Canada. I use the example here to stress the fact that doing business in foreign markets can be risky.

There are sanitary and disease regulations which work against our poultry products, including hatching eggs and chicks. An example of this is the fact that the United Kingdom will not permit frozen poultry meat to enter Britain because it considers us a "Newcastle area." In other countries there are licenses, complete exclusion, and national protective policies. Some countries, such as Italy, are emphasizing domestic poultry production and believe U. S. poultry must be excluded to protect domestic producers.

We look upon all of these factors as challenges. Our job is to gain entry for U. S. poultry products on a commercial basis and to maximize the number of U. S. markets and the amount of trading in as many countries as possible. In this way, we minimize our risks and we keep in touch with the growth and expansion of markets anywhere in the world. These challenges need to be met with the faith that our industry was originally built on--producing, selling for an unknown demand, overcoming all obstacles and hardships, and eventually winning through to victory.

The poultry industry has an exporting opportunity unique in its history. The Foreign Agricultural Service has made available in 11 countries more than \$1 million in foreign currencies accruing under Title I of Public Law 480 to advertise and promote demand for U. S. poultry products so that sales can be made by private U. S. dealers. But the opportunity will not come to the poultry industry unless it exerts its own energy and makes a modest investment to utilize the assistance of the Foreign Agricultural Service. It is, therefore, really up to the U. S. poultry industry to use these programs. If it picks up the ball in customary American style, by using imagination, energy, and friendliness, it will meet the opportunity and own it. May I urge you to encourage the industry in your State to use the avenues that are open to this industry to bring foreign demand into direct contact with U. S. poultry dealers who sell poultry products abroad.

MARKETING EGGS DIRECT TO RETAIL STORES

Claude Smith, Mississippi Federated Cooperatives

Selling eggs to retail stores today has become a complex problem. We might think a moment of how eggs were produced and sold in the past. Today we are selling a quality product that has been produced from large flocks of hens kept in houses under confinement, under very sanitary conditions, and fed a complete ration that produces a high quality egg. These eggs are being gathered 4 to 6 times daily, immediately placed in coolers of below 60-degree temperature. They are picked up twice each week in refrigerated trucks, carried to a central grading station where they are candled, graded, and packed under USDA supervision. They are then delivered to grocery stores in one-dozen cartons. In most cases, particularly in supermarkets and chainstores, they are placed in display coolers for sale.

To increase our sale of eggs through retail stores, we must go far beyond just placing a quality egg in the grocery stores. We must develop a merchandising program in order that we might meet competition with cereal people, to improve our quality in some areas, to increase the consumption of eggs, and to improve our pricing system.

1. Uniform quality - There are some individual producers still packing eggs on the farm and selling direct to stores. They are not candling the eggs to take out spots and blind chex, and are not properly sizing these eggs. Although they are of good quality, it is very bad for a housewife to be buying blood spots and leaking eggs.

2. Handling eggs in grocery stores - Most stores have only one cooler to keep eggs, vegetables, and fruits until they are displayed for sale. Eggs placed in a tight cooler with fruits for only a few hours will take up odors. Most coolers are very damp, and cases become wet. If eggs in cases are displayed in a dairy cooler with milk, when the housewife picks up the cartons they will come to pieces.

3. Brand of eggs - Some of the stores have four to five different brands of eggs in the same store. Too many of these cartons are not attractive to the housewife.

4. Eggs in stores too long - Stores do not pay close enough attention to the turnover of eggs. They put fresh eggs in display coolers on top of older eggs, instead of taking out the old eggs first and then placing them back on top. Eggs have been found in the bottom of display coolers which were 45 days old. We cannot expect the housewife to buy and eat more eggs under these conditions.

We must do a better job in merchandising and promoting sales. We need to select the most attractive carton possible, be sure the grade is marked correctly to assure the housewife when she buys a dozen Grade A eggs that she is getting 12 eggs that are Grade A quality or better, that the size of each egg will be two ounces or better. Everyone, whether an individual producer or a company should have enough pride in the eggs he is selling never to let eggs stay in a grocery store, labeled Grade A quality, over four to five days. We need to promote the sale of eggs through advertising the quality, the food value, and the many uses which eggs have in connection with food in order to increase the consumption of eggs.

MFC is starting a new program in the near future with a chainstore. These eggs will be candled, graded, and packed in very attractive, pictorial cartons under USDA supervision. Each carton will be wrapped and sealed in cellophane. Eggs will be delivered to individual stores daily. They will be displayed in special coolers for sale. If they are not sold within three days, then they will be picked up and repacked as Grade B eggs. This chain will have a full-time man working with the individual stores, promoting, displaying, and advertising the eggs.

The advantages in overwrapping are to maintain the freshness, prevent odors, prevent any cartons from becoming wet or dirty, or any tampering with the eggs. It will help to prevent any breaking. If there is any leaking, it will not leak out on the other cartons or in the grocery sack. There might be some disadvantages to sealing eggs in cellophane wrap, but I do believe the advantages will certainly help to promote the sale of eggs.

INCREASING EFFICIENCY OF POULTRY PROCESSING OPERATIONS

Norman V. Helbacka, University of Maryland

Requisites for an efficient plant operation are that the plant operate at maximum capacity and that the most efficient use be made of men, materials, machines, and facilities. Furthermore, the highest quality of outgoing products must be produced at the lowest cost. This product should be uniform in quality and consistently so.

Since the poultry processing industry is a relatively new processing industry, considerable knowledge can be gained from studying how other processing and manufacturing industries have coped with problems of maximizing returns. In particular, it may be well worth a look at the methods used in quality control work in these industries. Many of these same principles can be applied to the poultry processing industry with some modifications. At the University of Maryland enough work has been done to find out that quality control programs for

processors warrant further investigation. Although a lot of the work to be initiated belongs in the area of research, nevertheless all should be familiar with the approach so they can be applied when it becomes practical.

This does not imply that we do not have quality control programs in plants, but by use of the newer methods outlined it may be possible to get a well organized program, especially in the smaller plants. The larger plants already have initiated these programs.

It is important that these programs be initiated in a proper manner to avoid disappointment. The program should be initiated as an overall program since it will only be as effective as the weakest link. Processors should not expect too spectacular results as these programs take a long time to become effective. Finally, it is believed that such a program would lead to a sound promotional program as well as increasing the plant efficiency.

AUTOMATION IN EGG PACKING

Kenneth H. Brasfield
AMS, U. S. Department of Agriculture

Not long ago, local eggs that were marketed came from small farm flocks. These poultry flocks were usually incidental to the major farm enterprise; therefore, limited effort was made to improve upon them. The typical egg grading and packing plant was mainly an assembly operation. Small lots of eggs with wide ranges of quality were picked up at country receiving stations, assembled at a central plant, and reshipped in bulk pack on a wholesale grade basis. The changes in the industry since then have come thick and fast. Although there are still quite a few of these assembly plants around, the trend has been toward grading and packing eggs in the production area and shipping them direct to retail stores.

In recent years, there has been an increase in the production of quality eggs from large commercial poultry flocks operated under quality control programs. Improved methods of flock management, breeding, and disease control have contributed greatly to the success of such programs. Large lots of uniform, fine quality eggs have opened the way to mechanization in egg grading and packing. It has created a new trend in processing. As a result, the processor's job has become more complex.

How is mechanization affecting the methods and facilities for grading and packing eggs? What provisions are being made in basic plant layout design? To answer these questions, I will tell you how one firm converted from manual to mechanical grading and packing.

The old plant was located in the basement of a building that was used primarily for feed mixing, storage, and other operations not directly connected with egg grading and packing. There was only one doorway into this plant and it was used for both the receiving and shipping operations, and the platform was not practical for loading or unloading more than one truck at a time. The inside floor level of the plant was below ground level, which, together with the

narrow entrance way, prevented the efficient use of materials-handling equipment in the receiving and shipping operations. Oftentimes, receiving and loading out were done by hand, one case at a time, to avoid the cumbersome job of setting up an elaborate conveyor system each time a load was received or shipped.

The type of grading equipment used was what is usually referred to as a double sided bench--two rows of grading booths placed back-to-back with a common belt conveyor between them. This equipment was relatively efficient for processing eggs of irregular quality; but when the quality began to improve and become more uniform, this method of handling became inefficient. The carton makeup and supply facilities were not adequate. Graders had to spend too much of their time handling packing materials from the supply belt in front of them to the storage shelves behind them, and from these storage shelves back to carton shelves at the candling benches.

An improved facility was needed to take advantage of the potential economies afforded by these better quality eggs. The new building was designed and constructed to house a mechanized grading and packing operation. The two-story structure had processing and packing on the first floor and packing material storage, makeup, and supply on the second floor. Large areas were provided for trucks. Past experience proved this to be an important consideration. The receiving area was placed on the left of the building and the shipping area to the right. As the eggs are unloaded they go directly into a receiving cooler or into the grading and packing room. After being processed, the eggs go either into a shipping cooler or directly onto the shipping platform.

The entire first floor of the plant was constructed at truckbed height. This permits the efficient use of unit-load handling equipment in the loading and unloading areas and in the movement of product within the plant. As eggs are received the cases are stacked on 30-case semi-live skids for transporting. The cases are not again handled individually until they are placed at the grading and sizing machines. Wide areas for aiseways and uncongested work spaces have been provided in the air-conditioned processing room. The work stations are laid out so that more of the grader's time can be spent on grading eggs. Long reaches and other motions have been reduced to a minimum. The grader who can concentrate her efforts on grading eggs is the one who can produce the most volume with the best workmanship.

The second floor is used for packing material, storage, and makeup. Here, chipboard cartons are formed and placed in chutes that lead to the first floor. These chutes extend downward to where graders can reach the cartons easily. Molded pulp cartons are placed in specially designed chutes and no special forming of these cartons is necessary. These chutes also extend downward to within easy reach of the graders. Assembled egg cases, with the packing material inside, are supplied by case chutes to the rotary packing table.

Gravity conveyors are used at loading stations for holding a large reserve supply of eggs to be graded. One operator loads two machines. Since a backlog of cases is provided for each machine, the floor man is released to perform other duties. Unit-load handling devices are used to remove the eggs from the cases. An overhead belt conveyor, located within easy reach of the person loading the machines, is used to carry empty cases up to the second floor.

Group scanning is the method used to candle the lots of better quality eggs on the high-volume machines. After the operator places the eggs on the machine infeed conveyor, they pass down the conveyor to a section that is equipped with powerful lights located underneath. Here the candling is done. Eggs are scanned in groups and the checks, bloods, and other undergrades are removed. Next, the machine weighs and sorts the eggs according to size. Automatic packing units place the eggs six at a time into cartons or filler-flats. Rubber suction cups pick up the eggs and pack them into a carton positioned underneath. The filled cartons or filler-flats are then carried by belt conveyor to the packing area where they are hand packed into cases and stacked according to grade, size, and brand onto semi-live skids. These skid-loads of eggs are then moved into the shipping cooler or they are taken onto the shipping platform for loading out.

This is how one firm mechanized its grading and packing operations. We can expect more and more plants to make the change. Those that do build new facilities or remodel their present ones will find that the time and money spent on planning will be sound investments. Mistakes avoided by thorough planning result in savings in the initial cost of construction as well as in future operating costs.

It would seem that processing problems would be solved by simply buying high volume, automatic equipment. This is far from true. Such equipment is very costly unless it can be operated properly. The plant and equipment layout should be such that the movement of product will travel the shortest possible distance from the point of receiving to the point of shipping. If product, packing materials, or waste is carried any distance beyond that which is necessary, the handling costs are too high. Aisles should be located so that these materials can be moved safely and in the least amount of time. Work stations and work areas should be planned in detail and laid out to permit efficient operations. Where workers are crowded, or materials are not convenient to them, or they cannot work and move in a natural, easy way, they cannot be expected to do their best.

Perhaps the most important initial consideration is the availability of uniform quality eggs. A procurement program is necessary to insure a continued supply of these high quality eggs. Hand-candling facilities should be included for those occasional lots that do not meet uniform quality standards. The high-speed, automatic lines should be reserved for the uniform quality lots. Based on studies made by the Department of Agriculture, it has been determined that eggs having less than about 80 percent top quality cannot be processed effectively on present machines running at 20 cases per hour. This is because the average operator cannot detect and remove more than about 20 percent undergrades. Where undergrades run higher than 20 percent, frequent shut-downs will be necessary to permit the operator to catch up. Stoppages of processing and handling equipment can be very costly. If an attempt is made to keep production up, excessive undergrades will get into the finished pack.

Having modern facilities makes efficient operations possible but guarantees neither efficiency nor success. Facilities are merely a place to do business. If a dealer operates in new facilities just like he did in the old, the move will do him little good. Outdated plants that ignore improvement cannot keep pace with the modern plant.

Automation in shell egg grading and packing is here to stay. Mechanization of handling will increase. Facilities will be modernized. Further improvements in processing, handling, and transportation will come.

CONCLUSIONS AND RECOMMENDATIONS

of Work Group on Poultry and Eggs

Statistical quality control procedures have considerable possibility in the poultry processing field. There is a place for AMA funds in studies designed to develop a statistical quality control procedure. Best results will accrue if industry is alerted to the possibility and as a result requests such studies. Because of variation between plants, the study should be on an individual plant basis rather than on an area basis. State personnel must be well-grounded in techniques, plant personnel must be trained, data must be taken uniformly and accurately, and sufficient data must be taken to establish a meaningful basis for operation.

Haugh Unit measurement has a definite possibility of fitting into the egg marketing field. Further study is needed to establish proper levels and necessary controls. As this new method comes into more general use, careful consideration by all agencies must be given to the means of fitting it into existing regulatory programs.

Grade names for agricultural products at the retail level need to be uniform, definitive, and understood by the housewife. Standardization can be most effectively brought about by the development of objective tests for the quality factors which have importance to the consumer. As more objective tests are developed, it becomes of increasing importance that the specifications be uniform if poultry and eggs are to move freely in market channels.

There is considerable evidence that promotion programs for agricultural food products will not result in a net gain in the total agricultural economy for these reasons: (1) Total consumption per capita remains fairly constant at about 1,500 pounds, and (2) results so far have indicated shifts in consumption rather than a total increase. Individual industries are forced to promote their products if they are to maintain their share of the food market.

Funds for promotion of eggs and poultry on a national scale are inadequate. Some means of raising more funds are necessary. There are two ways of getting additional funds: (1) By national organizations using a check-off method, and (2) by marketing orders.

The poultry and egg industry must recognize that advertising is not the whole answer, it is only an instrument. Promotion programs must recognize that the final sale is at the local level. Promotion, therefore, must be on a personal basis. Promotion at the local level requires a label for identification.

There must be a continuity of material throughout the year rather than a spasmodic approach. Promotion on a national basis should utilize "tie-in" appeal and should point to reasons for buying the product rather than just keeping the name of the product before the public.

Several States have used enabling acts in raising funds and have carried on successful marketing and promotion programs. Since State departments of agriculture are responsible to all of the agricultural groups in the State, they must take the lead in laying down guidelines to assure that each group gets its money's worth from funds raised for promotion.

There is prospect for a continued expansion of poultry meat for the following reasons:

1. The efficiency with which poultry meat is produced makes it comparable in price in all countries where money is equal without the need for subsidies.
2. The variety of poultry meat products available.
3. The large increase in store refrigeration in the European market area.
4. Funds available for promotion through Public Law 480.
5. National industry support in promotion from all segments.

Direct marketing to retail outlets has been successful when adequate controls have been established to assure uniform quality. Such controls must go beyond the producer and packing station. Proper handling and display at retail levels should include dating or other means to assure that eggs are moved rapidly. Overwrapping of egg cartons shows some promise from two points: (1) Appeal, and (2) protection.

The poultry and egg industry needs to produce a uniform and consistent product. This requires a quality control program. Statistical analysis is required to determine size of samples needed.

A quality control program should start as far back as possible. The breeding flock and hatchery is an important segment of a control program. A study of quality control program results in other industries indicates that the poultry and egg industry should encourage research in this field.

Automation in egg packing plants is becoming increasingly important with the progress in commercial egg production. Increased efficiency by use of mechanization is dependent on a highly uniform product. Competent assistance must be secured in building new plants or remodeling old plants if waste is to be avoided.

Efficient operation requires operation at near maximum capacity if economies are to be effected. It requires consistent volume of uniform quality. Consideration must be given to the need for two-shift operations to make maximum use of equipment.

Change in egg packaging from terminal markets to country points is rapidly taking place. It has resulted in the need for contracts with producers to assure adequate volume. Contracts generally provide for payment based on grade-yield. The trend to country points in packaging and resultant direct marketing requires study on the best method of establishing f.o.b. prices.

Work Group Sessions

COLLECTING AND DISSEMINATING TIMBER DATA IN THE SOUTHERN STATES

Roy B. Johnson

Louisiana Department of Agriculture and Immigration

The first market information on timber products in Louisiana was issued in October 1955. Considerable research was behind that first report. Fortunately for our department, much of the leg work had already been done by such agencies as the Southern Forest Experiment Station, the Louisiana Forestry Commission, the State Forester with the University Extension Service, and the Illinois Cooperative Crop Reporting Service. These agencies and individuals provided basic data that was the groundwork for our project. From published reports as well as correspondence and personal interviews with personnel in these various services, essential information was assembled regarding (1) major forest types and production areas, (2) distribution of sawtimber volume by species, (3) distribution of timber output by type of product, (4) location of wood-using industries by type, and (5) industry buying practices. The objectives of the timber project were very simple. First, we intended to provide timber owners with price information that would enable them to sell their products at or near a true market value. Second, we desired to assist in the program of developing or renewing interest in forest production and management by showing the value of several of the important timber products. We feel these goals are being accomplished.

There are a number of ways to measure the importance of the timber industry to our State but for this discussion we will consider only three or four. From the standpoint of ownership, there are more than 100,000 small owners of timberland in Louisiana whose holdings total 5.9 million acres. This includes owners of 500 acres or less. There are an additional 2,000 large owners, over 500 acres each, who possess 8.3 million acres of forest land. Such a distribution of ownership represents a healthy condition which tends to promote a stable economy. In 1959, there were more than 824 million board feet of timber sawlog size cut in Louisiana. Breaking these board feet down by specie and applying the average value assigned each specie by the Tax Commission, we estimate the total stumpage value of this cut to be more than \$18 million. Added to this, was 1½ million cords of pulpwood worth over \$5 million at stumpage giving a total of \$23 million as the value of timber cuttings last year. For the same year, the average number of people employed by the forestry industry in our State was 38,600. Estimating the average wage of all forest industries employing four or more people, this meant a \$294 million payroll for this product.

We rely chiefly on the mailed questionnaire for the bulk of the information that goes into the timber report. Followup or second mailings are seldom used. Key reporters who are late in replying are usually contacted by telephone or by personal visit. In this category of reporters are those located in areas where our sample is so small that it is necessary to have an extremely high percentage of firms reporting in order to obtain an average price in which we can place a reasonable degree of confidence. Also considered as key reporters are those firms doing a large volume of business.

Our reporter list, for the most part, are timber-using industries. There are a few instances where we get information from the seller and from contractors. However, broadly speaking, our prices reflect an average price paid by plants both for standing timber and f.o.b. car and delivered plant basis. We obtain a simple average price from our quotations. Although we are able to identify the larger firms and realize their purchases of timber stock is considerably greater than the average, no attempt has been made to assign weights and come up with a weighted average price.

Moving on to our dissemination procedures, we maintain a small mailing list of those firms and individuals who have made formal requests for the timber report. A check of the mailing list of this group shows that the report is being sent to 18 States other than Louisiana. These requests are often a result of someone having seen a copy of the report or read an article to the fact that such a release is available. The bulk of our distribution, however, is made in cooperation with the Extension Service. County agents in each of the important timber parishes of the State distribute reports to forest landowners and others interested in the production and marketing of timber.

Aside from the value of this service to individuals and agencies directly concerned with timber marketing, we have found that our report serves another important purpose. The prices quoted in the quarterly market report are used in determining the current average stumpage values for the various species of timber on which severance taxes are collected. Once each year in January, the Louisiana Tax Commission and the Louisiana Forestry Commission meet to set these average values, and our prices have an important bearing on the adopted values.

There are many problems connected with timber pricing and reporting. Some of these, however, are of the same general nature we face in working with any commodity, while others are peculiar to the forestry industry. One of the most important considerations in a survey of the type used for this project is the location and number of reporters. We report an area price as well as a State average. It is necessary, therefore, to have an adequate number of reports from each area in order to correctly reflect the true market conditions. We like to have a sampling from the small operators as well as the large ones.

Another important factor is grade. A wide range in price quotations for sawlogs, for example, may reflect a difference in the quality or grade of timber purchased by several mills. Price quotations by some grade standard would certainly narrow this range and provide a more accurate basis for reporting.

The problem of keeping an up-to-date list of reporters is a very real one. Each quarter, we can expect to find some firms changing hands or going out of business, while new ones are being organized. To keep abreast of these changes entails a considerable amount of followup work on returns as well as new contact work.

A final problem area, and one of much concern, is in the distribution of the information which we have compiled. A mailing list of each of the more than 110,000 timberland owners would be a costly operation. Yet, we realize that the limited mailing list we maintain plus the few thousand copies of the report distributed by county agents are inadequate means of dissemination.

The media of radio does not readily lend itself to the type of statistics used to tell the story of the timber market. Trade magazines and newspapers have not been explored but appear to offer better possibilities for presenting a condensed market report each quarter.

In conclusion, it might be said that the problem areas just discussed perhaps offer the best hint to future courses of action in timber pricing in Louisiana. We hope to explore many of these avenues along with others that we find.

OPPORTUNITIES IN FOREST PRODUCTS MARKETING IN THE FAR WEST

Richard W. Bruce, Washington State University

The focal point of much rather controversial interest was Senate Bill 848, introduced in the Senate on January 25, 1957 by Senator Humphrey. This bill called for the Secretary of Agriculture to "...provide farmers and other owners of small forest properties with current information on markets and prices..." The result was a small avalanche of material both pro and con, from which the following observations might be made: (1) Lumber price reporting is already adequate, (2) reliable stumpage price reporting may not be possible, (3) there appears to be little discussion concerning price reporting for sawlogs, (4) local rather than Federal aid should do the job of price reporting if it is to be done for forest products, (5) some fee price reporting may lead to Federal controls and unfavorable tax adjustments, and (6) price reporting may be desirable in spite of the possible implications and limitations. The controversy raises questions concerning both desirability and feasibility of market reporting.

Findings in Washington State indicate that sawlog price reporting, at least, is desired by both forest landowners and operators in the forest industry.

Programs in the Far West

In addition to numerous local market reports compiled by county agents and farm foresters, some rather extensive market reporting is presently being done by cooperative efforts of numerous State and Federal agencies. The purpose has always been to inform private landowners of market conditions and prices, often with the secondary aim of encouraging forest management. Regularly published reports are now available in Oregon, Washington, Idaho, Montana, and California. These reports vary in extent of geographic coverage and frequency; however, they all tend to emphasize prices for sawlogs and pulpwood, as well as minor forest products. The limited information available indicates that these reports have been very favorably received. Acceptance and encouragement has come from landowners, loggers, and sawmill operators.

Information Gained From Market Reporting Experience

Method of Collecting Data

Two commonly used methods of obtaining price and market information are through use of mail questionnaires and personal contact. Eastern Washington has a well established open market for private sawlogs, while central Washington

has only a few private landowners selling to a relatively large number of mills that depend mainly on timber from either their own land or public land.

In eastern Washington we have used a mail questionnaire. This questionnaire is sent each month to mills that purchase sawlogs delivered at the mill. An evaluation of the results of this experience has led us to make two observations: Responses have been received in sufficient number to adequately define the market price within the limitations imposed by product standards and scaling practices; and the responses have been sufficiently free of bias to be reliable. Over 70 percent of the region's mills cooperate to some extent, with about 25 percent of them responding more than half of the time.

Experience in central Washington has led us to depend more on contacts by field personnel rather than mail questionnaires for this type of market, since this permits a more carefully selected sample to be used, made up of the same mills each time.

Value of the Report

A study conducted early this year attempted to learn whether or not the market report was acceptable to forest landowners, and also to describe the impact it was making on the forest economy. The following is a quotation from that study: "Initial evidence indicates that market reporting may be partly desirable and partly undesirable. Desirable aspects seem to be: It encourages forest management to provide for future growth; it provides information wanted by small forest landowners; and it provides information to a segment of the economy that has frequently lacked such information. It may be undesirable, however, to the extent that continual reminder of present values encourages immediate harvesting without regard for future yields."

In addition to the possible relationship to forest management, we have begun to learn something about the economic environment in which forest landowners operate. One question we have frequently attempted to answer concerns the extent to which forest landowners can influence the price they receive. Does the price they receive depend on certain characteristics which they can control, or do the price-making forces exist outside of their sphere of influence? Two bits of evidence available from the market report give support to a tentative conclusion.

Data show that sawlog prices do not have distinct seasonal movements. This leads us to believe that sawlog price movements are not influenced to a great extent by logging conditions and volume of logs available for sale. On the other hand, we do note a close relationship existing between sawlog price movements and lumber price movements. The tentative conclusion we might draw from these two observations is that market conditions for lumber exert a major influence on log prices to which supply conditions adjust.

Extent of Industry Support

One other point worthy of mention is the extent of industry support of market reporting. We have received numerous favorable comments from sawmills, landowners, loggers, and others associated with the forest industry.

Probably the most concrete evidence, however, was the request from three of our leading forestry trade journals to publish the market report information regularly. These include The Timberman, Western Equipment and Timber News, and Market Trends. Newspapers also have felt this type of information to be newsworthy.

Problems Encountered in Market Reporting

The following problems have been faced in attempting to publish a periodic market report:

1. Obtaining an adequate sample at a minimal cost.
2. Obtaining accurate prices within the limitations of existing product standardization and scaling practices.
3. Reporting a meaningful price.
4. Defining the number of reports necessary each year.

It cannot be said that these problems have been "solved," if that would imply, as it does in solving a mathematical equation, that no further study is necessary. These are areas deserving of additional attention, and perhaps it is here where the greatest opportunities lie.

Opportunities for Future Development

The final question we will raise is, "Where do the opportunities lie for future development of market reports?"

Minimizing Collection Cost

The possibility of minimizing costs will in the final analysis be tempered by two other considerations: First, the ratio affixed to variable costs, and second, the needs of the people being served by the market reports. Findings in Washington indicate a desire on the part of private forest landowners for "...complete coverage of all the multitude of small forest commodities, both major and minor; and localized geographic coverage."

The opportunity remains, however, to devise a means of adequate reporting at a minimum cost. "Adequate reporting" of course, provides us with a second opportunity.

Increasing Accuracy

The suggestion of reporting selected commodities, species, or locations, may also increase the accuracy of reporting for any given cost level by permitting more intensive methods of obtaining data to report. One city, for example, if it were a key city, could be completely canvassed for each report; hence, we could aim for nearly 100 percent coverage of such a city to insure greater accuracy.

Increased personal contact may be a means of obtaining more reliable information, or use of the telephone, rather than a mail questionnaire.

One of the more noteworthy recommendations for increasing the accuracy of price reporting has been made by Guttenberg. ^{1/} He suggested that price reporting should recognize five distinct "price populations:"

1. Timber being grown for utilization in the owner's plant.
2. Long-term contractual agreements between growers and users.
3. Public timber.
4. Private sales by informed sellers.
5. Private sales by uninformed sellers.

Coordination

In Washington, the Washington State University Department of Forestry has published market reports for eastern and central portions of the State. County agents and farm foresters have provided similar information for various counties and areas in western parts of the State. Not long ago, the people doing this work asked the Washington Crop Reporting Service to undertake coordination of their efforts. As a result, the Crop Reporting Service now publishes a state-wide forest products market report each quarter. Prices quoted are average prices for market areas made up of several counties each.

We believe this statewide report does not replace the need for local information, but it does do an extremely important job of coordinating a large number of previously uncoordinated efforts. This information provides a basis for understanding price movements over the entire State. Extensive support for this project has encouraged its continuation.

Product Standardization

Sufficient to say, the lack of accurate definition of many forest products makes the job of reliable market reporting a rather difficult task. Progress in market reporting will continue to be hampered until more precise grades and standards are developed, and accepted by the forest industry, for sawlogs and other products.

THE CHRISTMAS TREE PROGRAM IN PENNSYLVANIA

Dewey O. Boster, Pennsylvania Crop Reporting Service

According to the 1959 Census the land area of Pennsylvania was approximately 29 million acres with only 41 percent of the land area in farms. A little rapid arithmetic applied to the total land area leaves about 17 million acres of land area not in farms, quite a sizable chunk of land. However, as most of you know we have some fairly good-sized mountain ranges sweeping across the Keystone State. Consequently, timber, or forest products, represents no small segment of the State's resources. Also, hidden on many sloping hillsides of these mountain ranges and gradually creeping on some marginal valley land are the commercial Christmas tree plantations.

^{1/} Guttenberg, S., Stumpage Price Reports as a Stimulus to Timber Growing. Proc. Soc. Amer. Foresters Meeting, Memphis, Tenn., 1956. pp 132-133.

In years gone by, many Christmas tree producers attempted to capture as much as possible of the native growth interspersed with seedling plantings to properly utilize the land facilities available. Improved techniques, more hardy and disease resistant seedlings propagated under technical supervision and controlled seedbeds, together with mechanical equipment for planting, shearing, and harvesting operations have fairly well removed the Christmas tree industry from "a catch-as-catch-can" type of operation into the realm of a highly specialized commercial enterprise.

With considerable urging from the Extension specialists at the College, and the Growers Association through resolutions adopted by both the Association and its executive committee, the Secretary of Agriculture, Dr. W. L. Henning, was requested to initiate some exploratory work in this field. Needless to say, we had some experience in the field of complete enumeration over the years in connection with inter-census fruit tree surveys. As a result, we approached the project with some reluctance, realizing it would require several years to reach full coverage or as nearly as possible a census of population. The Extension specialists wanted a tree count of population by age groups, and by species, similar to our fruit tree surveys. We had no background experience to draw upon in this new endeavor. The industry and allied interests spoke of the size of the growing crop in terms of 40 million trees.

Through the efforts of Dr. Henning we were able to obtain \$5,000 of Federal matching funds for the project. The primary objective was to survey the industry to provide basic information for growers and marketing agencies to use as a guide in production and marketing plans for the Pennsylvania Christmas tree industry. As pointed out earlier, the survey was designed and planned for a complete enumeration of the number of trees by species and ages, by counties, planting intentions for 1958, and sales in 1956.

Method of Obtaining Data:

As a nucleus with which to start, the Extension and Forest Service at the College provided us with about 1,200 names and addresses of Christmas tree growers.

The first step was to circularize this list requesting names of additional growers. In early June 1957, an initial mailing of 2,400 questionnaires was made. This initial mailing was followed by five followup mailings to non-respondents. While the mailed survey was being conducted, personal interviews of nonresident growers were made to obtain some measure of their holdings. In our original planning of the survey, we realized that describing the universe was by far the most important step in the process. It was our desire to obtain just as complete coverage as possible since the data would represent a benchmark from which future estimates would be determined.

By phone, personal letters, and personal interviews, the man assigned to directing this project pursued leads relentlessly. By February 1958, about 9 months later, we felt we had about reached a saturation point, and could begin our second step, processing and publishing the results. Through the use of automatic data processing equipment we released the first publication, a bulletin entitled "Pennsylvania Christmas Tree Survey, 1957." This bulletin included reports on 1,785 actual Christmas tree operations. As a result of several conferences with the Extension people, county agents, and the Growers Association executive Committee, it was determined at that time that we had about 93 percent coverage.

Approximately 200 growers had not responded, and the greater portion of these were small plantation owners. We were confident we had covered all the major commercial concerns adequately.

Since the original survey in 1957, we have continued to uncover additional growers, mostly with smaller holdings until the present time we now have recorded approximately 2,000 known growers on the list. The survey revealed 65 million trees growing - or about 62 percent more than commonly recognized by interested parties and organizations.

Impact of this Report:

The executive committee of the Pennsylvania Christmas Tree Growers Association, working closely with the Extension marketing and forestry specialists at the College developed a program which in the initial stages would publicize the size of holdings, the supply picture vs. the demand size of the picture. An intensified public relations program through the College, county agents, and officers of county grower associations was beamed at the growers to fully alert them of the supply problem as contrasted with the potential sales outlet. Our surveys indicate we market from 1.0 - 1.5 million trees annually.

The supply picture pinpointed the problem of a supply on hand at 65 million trees, while marketing in the vicinity of 1.0 million trees annually. This problem was attacked with force and vigor.

The Extension people kept hammering away at the quality aspect. Practially overnight more interest and enthusiasm were engendered for shearing and grading of marketable trees. Shearing and grading demonstrations caught on and have been conducted throughout the State. It's an educational process, and a slow process, but growers are coming around to this new approach to their problems. They realize they must meet their competition with a quality product.

Furthermore, under the leadership of the State Association executive committee, a cooperative marketing outlet was established for members who could meet the quality requirements. This agency of the Growers Association immediately inaugurated a program of compiling a list of buyers and alerting them to the function and purpose of the sales agency. Through the use of a tight contract with the growers relative to grades and quality, the new agency was in position to jockey for a large chunk of the northeastern markets volume.

At its inception, most of the management requirements were donated on a voluntary basis. The success of this endeavor, I am reliably informed, now necessitates the establishment of full-time personnel within the season to handle the volume of business. Contracts are consummated as early as May and June with the major retail corporations.

The territory appears to be unlimited in view of the proximity to major terminal markets such as Detroit, Cleveland, Buffalo, Pittsburgh, Philadelphia, Baltimore, Washington, D. C., New York, Boston, and many other smaller cities.

Continuing Program

I should like to point out that this project is one of the most popular in our shop. Frankly, we had not planned on making this a continuing program. We thought once we had surveyed the enterprise, that would be the end. However, at the insistence of the Growers Association, no doubt prodded by our friends in the Extension Service, they have prevailed upon the Secretary of Agriculture to continue the project on an annual basis.

You might, and justifiably so, raise the question, "what do you do now?" The answer to the question is to keep the inventory current. In other words, we established a bench-mark in 1957. Some adjustments have been made each year as completely new growers were brought to light and their holdings built into the inventory.

The process of adjusting the current inventory on an annual basis is accomplished in two steps:

1. As of each May 1, we survey the approximately 2,000 growers with a schedule designed strictly to obtain data regarding new plantings. May 1 is about the end of the planting season, and we go all out, several followup mailings, plus personal interviews of the larger operators to assure us representative coverage of the industry, which in turn adds reliability to the indications.

The relationship between existing tree numbers and new plantings affords us a correction factor to adjust the inventory to a current basis. This is done on a specie basis. Basically, this technique is quite similar to other established procedures in Crop Reporting such as adjusting current layers in the laying flocks by input of pullet layers, and output due to mortality and culling.

2. In mid-January of each year immediately following the Christmas marketing season, we go out again with a schedule designed to obtain information on harvesting, sales, and average prices received by species. These harvesting data, or trees cut, as differentiated from sales, provide us with a correction factor for adjusting tree inventory for output. In addition to these two surveys relating to inventory numbers, we have been prevailed upon to conduct three special price surveys as of mid-October, November, and December. This is more or less a sampling approach as we are merely attempting to measure price levels rather than actual sales. This is done on a specie basis. We first attempted this feature of the project in 1957 by starting on a four-month basis in mid-September. As we studied and analyzed the results, we became skeptical of the results by starting as early as mid-September, we were convinced we were not getting sufficient contractual sales data to stabilize our indications. Too many of the smaller growers, were reporting in terms of hopes, desires, or the moment's intentions. In our opinion we felt this type of information could be more harmful than beneficial, and we suggested dropping this feature, and so proposed to the Growers Association at their annual meeting in 1958. The Association was reluctant to go along and insisted upon the monthly price releases. It was decided to hold down the survey to October, November and December.

This feature has been continued and we have been advised by the Growers Association that it is one of the most important phases of the project. They believe it tends to eliminate many cut-throat practices which in the past demoralized the price structure. These releases are highly publicized in the local papers, and are a bargaining level between growers and buyers. We've been holding our fingers crossed on this sensitive element, but so far have been able to escape unscathed, and with a minimum of criticism from any segment of the industry.

Where are we in 1960?

Our July release on inventory numbers of Christmas trees shows the growing population at approximately 84 million trees. We visualize the size of the inventory only complicates the marketing problem, as well as the future of the industry. We believe, however, the industry has accepted the old adage so frequently referred to with respect to statistics, "a man's judgment is no better than his facts."

This project, insofar as we are concerned in the Pennsylvania Crop Reporting Service, is to present the facts as they are, as best we can, and in an unbiased manner. The industry assures us, we are doing a worthwhile and acceptable job. The Growers Association keeps on pressuring the Secretary to adopt the project as a part of the regular scheduled program of State reports.

THE NATIONAL FORESTRY PROGRAM IN RELATION TO STUMPAGE AND LOG GRADES

Roswell D. Carpenter
Forest Service, U. S. Department of Agriculture

Log grading is concerned with grouping logs by observation, according to their external characteristics and in relation to their value for specific uses. Two types of log grades are required, one to grade logs in the standing tree and the other to grade logs after they are cut from the tree and end defects observed. It would be futile to attempt to devise grades to give precise values for individual logs, because such a system would take more than external indicators and be too complex to be applicable. The present approach is concerned with development of measures applied to the logs that will stratify the logs into quality and value groups according to products. The values of individual logs within a group will vary, but the value of the group as a whole will fall within prescribed limits of accuracy. All log grades must relate the external characteristics of the log to the end products to be manufactured from the log.

Development of grading specifications for logs is complicated by the large number of tree species involved and the long list of consumer goods made from wood. For instance, there are 99 species of hardwood and 42 species of softwood trees sawn into lumber presently; 68 and 18 of these same species respectively are cut into veneers. To offset some of these complications and limit the multiplicity of research efforts required to establish log grade specifications for all end products, the primary round sections into which a tree may be cut

after felling are defined as logs, bolts, and round products. The first two are subject to further breakdown by mechanical or chemical processes for conversion into end products. Each of the three groups is further broken down into major product classes and grades developed under the classes as follows:

Logs

Veneer class: Grades required for 3 product groups of logs.

1. Face veneer for panels and furniture.
2. Crossbanding and panel back veneer.
3. Container veneer.

Lumber class: Grades required for lumber used in construction or remanufacture into other products. Lumber for remanufacturing and construction is subject to standard lumber grades as published by the several lumber grading and inspection bureaus.

Structural class:

Grades required for logs satisfactory for railway cross and switch ties, bridge timbers and decking, mine lumber and timbers, et al.

Local use class:

Grades for logs not well suited for conversion into veneer, standard lumber or structural items, but yielding lumber items satisfactory for farm building maintenance and other uses requiring low quality material. Logs usually having large defects and containing only 50 percent sound wood. Products cut from such logs are usable only locally as low value prohibits payment of shipping costs necessary to wide distribution.

Bolts

Veneer class: Grades required for 3 product groups of bolts.

1. Face veneer for panels and furniture.
2. Crossbanding and panel back veneer.
3. Container veneer.

Saw class: Grades required for 9 product groups of bolts.

1. Cooperage.
 - a. Bourbon whiskey staves and heading.
 - b. Tight cooperage staves and heading.
 - c. Slack cooperage staves and heading.
2. Furniture dimension - flat and squares.
3. Box material.
4. Turnery material - selected species.
5. Handle stock - selected species.
6. Ski billet - selected species.
7. Specialty products - athletic goods, picker sticks, et al.

Chip and chemical class: Grades required for 5 product groups of bolts.

1. Pulpwood.
2. Charcoal.
3. Chemical - distillation wood.
4. Roofing felt.
5. Excelsior.

Grade specifications may be devised to apply to more than one product in each of these groups.

Special Products

Round class:

Grades required for 4 product groups.

1. Poles - transmission line and building construction.
2. Piles.
3. Posts - fence, guard rail, et al.
4. Mine material - props and other round pieces.

Tree grading is similar to log grading in that it aims to segregate trees into value groupings but it is based on grading whole trees. Thus far this has been done only by grading the individual logs within a tree. Research is determining the possibility of tree grading by grading a single indicator section such as the butt or first log.

Available Log Grade Information

Log grades are presently in use in many parts of the country for veneer and lumber logs. However, in but a very few cases is there any uniformity, or are the same standard grades used in any two instances. Most grades are set up by a company for its own use and differ from those used by a neighboring company manufacturing the same product. Log grading systems developed to date can be classified into three groups based on the methods used in grade development. Any given grading system may have been developed by one or a combination of these methods.

1. Judgment grading systems

Judgment was the basis of the development of the log grading systems in use by the grading bureaus on the west coast. The development starts with a statement of what type of end product and the minimum amount of it required to be produced from a given log or tree. Outward indicators or characteristics are added to the specifications in order to help less experienced men apply the grading system.

2. Arbitrary grading systems

The first step in the development of an arbitrary grading system is the writing of the specifications. These are set down by experienced woods and mill men and are based upon the more obvious visible log characteristics, such as size, clearness, knot size and distribution.

3. Analytical grading systems

Analytical development of a grading system results only with a thorough study of the relation between log characteristics and product or value yields. After such study reveals which log characteristics are the most important in controlling product or value yields, it is then possible to write sets of specifications which group the logs by similar characteristics. The product or value yields for each group or grade within a system is then determined and presented as the performance for that grade.

Complete information is not available on the methods used for developing every log and tree grade system on record. Probably most of them have been developed by one of the first two methods. Certainly the West Coast Bureau Grades are known to be judgment rules. Individual company grades are generally arbitrary. Only a few have been developed by the analytical method.

Because of increased interest in, and the need for standard systems of grading logs and standing timber, the U. S. Forest Service has established a national log grade committee. The chairman of this committee is the Director of the Division of Forest Products and Engineering Research in the Washington office of the U. S. Forest Service.

The National Log and Tree Grade Project has been established with five field research projects, based on tree species groups. The projects serve to coordinate all log and tree grade research and development work within their respective areas. The Forest Service has set up procedures for establishing standard log and tree grades within this framework. As of now, only one set of log grade specifications has been approved as Standard for the Forest Service. These are the "Hardwood Log Grades for Standard Lumber" which were developed by the Forest Products Laboratory. These are not adequate for grading logs in trees because the grade specifications include evaluation of log end defects and hence require highly trained specialists for their accurate application. However, analysis work is underway to improve them in this respect.

In addition to the hardwood log grades, grades for Southern pine logs have been developed which have been given an "interim" status pending final approval. Work to improve log grades for Ponderosa pine and Eastern white pine is well under way and new specifications will be available shortly.

Although not a system of log grades, minimum specifications have also been approved by the Forest Service for the structural class or tie and timber quality log. As has been said, many individual firms have log grading systems of their own. Special industries in particular make extensive use of rather detailed grades. However, most of these log grades are based on sawn or veneered end-products. Poles, piling, and other round product specifications have not been translated back into log or tree grades to a similar extent. Neither are there any pulp grades on which grades for sticks of pulpwood can be based, although some companies have minimum pulpwood standards.

Use of Log and Tree Grades in Reporting Market Information

General

According to the best information obtainable, 14 States are presently reporting forest products market information and prices in published form. Some States have performed such service for several years while others have commenced very recently.

Although the attempts at reporting forest products price and marketing data are commendable, there are several detracting factors which must be overcome to raise the level of efficiency and resulting usefulness. These factors are:

1. Lack of uniformity in reporting thus excluding the possibility of comparisons.
2. Lack of quality or grade information as evidenced by the large spread where price ranges are reported.
3. The fact that all information is historical and thus does not reflect the current fluctuations taking place. The longer the reporting period the more this enters in.

Coordination and Research Needed

Lack of uniformity in reporting can only be overcome by coordinating the data collection, analysis, and presentation between States reporting on like tree species and products. The second factor, lack of quality or grade information, can only be overcome by using all the standard grades available and including others as quickly as they become ready. The National Log and Tree Grade Project will ultimately supply log and tree grades for all commercially important tree species and log grades for all the product classes for logs, bolts and round products.

To report stumpage price information directly useful in marketing standing timber, information is needed in addition to the quality measures as expressed by log and tree grades. This should include species composition, accessibility, volume of sale, or other factors significantly affecting stumpage price, identified in a standard objective fashion and based on actual sales data. It is also essential that products be measured on a clearly specified basis and that sales-price data for these be obtained on a sampling basis that will result in representative prices.

Research to develop and apply standardized quality grades for logs and trees and more accurate procedures for identifying and classifying these other factors which affect price will help to achieve these objectives. Variations in stumpage should be indicated in price reports and related to measurable characteristics of the timber sold. Methods should also be evolved for getting efficient sampling of prices of timber actually sold, and an appropriate weighting scheme should be established for averaging stumpage prices by groups of products and geographic areas, both for use in local appraisals and for such purposes as trend analyses.

Various technical problems are involved in accurate price collection and reporting such as tree measurement, grading, and evaluating of accessibility. It is possible that foresters providing timber marking and marketing services

to forest landowners could obtain much of the standardized data on actual sale prices of stumpage in terms of timber volume, grade, product, accessibility and related factors, needed for price reports of maximum reliability and usefulness.

The last factor, all information is historical, is perhaps the most difficult to overcome. It is believed that all reporting should be done on a monthly basis as this will keep the information more up to date than that for longer periods and make it of increased value to the user. An objection to this from some areas will probably be the increased magnitude of the data collecting job. A way to overcome this objection might be to choose "price leaders" among the larger forest products manufacturers who process several to many products and use these as the source of price data. The data collection might even be done by telephone, and this would result in a quickly prepared report reflecting all the current market fluctuations.

THE NEW JERSEY CERTIFIED MARKETS PROGRAM

Paul Taylor, New Jersey Department of Agriculture

After several years of consideration by a group of progressive thinking farmers, the encouragement offered them by the New Jersey Department of Agriculture, New Jersey Farm Bureau, and the Extension Service, a new roadside market organization was established in 1957. This was unique in a sense, because looking back into the history of roadside marketing organizations it was found that over the past 30 years 9 such organizations were developed but only one remained active. In addition, one of the 9 organizations that failed to accomplish its goal was a New Jersey group established in 1931. Other States failing in their objectives were Massachusetts, Connecticut, Maine, Rhode Island, Ohio, Missouri, and New York with two organizations.

Despite the black history for roadside marketing organizations our New Jersey enthusiasts embarked on a program designed to hurdle the causes of failure for others and achieve success.

This organization launched its program with 14 members from a total of approximately 2,000 roadside markets in our State. The gross sales range from a few hundred dollars per market to nearly half a million dollars per year. At the present time 35 markets are engaged in this self-help program. The membership started small and has been kept small for fear of not being able to control the activities of the members. As membership is increased the problems of organization and control rapidly increase. Additional skilled manpower in this field must be made available in order to insure fast growth without endangering the purpose of the organization. We believe the ability to control and service a large number of members is the key to an effective roadside marketing program.

After four years of operation this organization can boast of many achievements, but at the same time they realize they are at the crossroads of success or failure. From the beginning it was decided that 5 years of operation were necessary in order to properly develop a sound, realistic, long-range program. The leaders of "Jersey Certified Markets, Inc." are confident that this

organization will live because it is a nonprofit corporation, formed for the purpose of promoting the sale of New Jersey farm produce by increasing the confidence of the consumer in New Jersey farm markets. It was felt that although there are a great many farm market operators who continually endeavor to serve the consumer with an honest product, unfortunately there are some who through their unethical practices give the industry as a whole a bad reputation. The Association hopes eventually to include all those who fit into the first category.

Requirements for membership are not dependent on the size of the farm nor the market, but rather on the integrity of the operator. Each member must abide by a specific code of ethics which is posted in the market for all to see. He is guided by periodic visits which are carried on by the Association management and by the Division of Markets of the New Jersey Department of Agriculture. Any violation of his agreement or regulations constitutes grounds for revoking his membership. The Association provides for its members pertinent information, publicity, and whatever assistance necessary for the improvement of the farm markets. Qualifications for membership require that the applicant be a farm market operator, but not necessarily a farmer.

The Association's program is financed by the members' annual dues and monthly fees. The original annual dues are payable with the application for membership and payable annually thereafter by June 1 of each year. For markets with an annual gross up to and including \$25,000, annual dues are \$50 and \$10 per month for each month open. Markets with over \$25,000 annual gross, pay annual dues of \$100 and \$20 per month for each month open.

In addition to advertising and promotion by means of radio, television, and the press, a very important function has been performed for the Association's membership by cooperative purchasing of paper bags, fiberboard containers, superior quality jams and jellies, mincemeat, pure Vermont maple syrup, charcoal, fertilizer, and a few other items. This additional service has proven very successful financially to both the organization and its members.

In order for any roadside marketing program to be successful, even for four years, the markets participating must be willing to cooperate and show leadership. Based on research a manager is necessary to carry out sound policies, a strict control program is mandatory and must be handled by a third party. Without these a program will not be successful. Marketing and consumer research should be carried on continuously if members and consumers are to be benefited by your efforts.

Our New Jersey Department of Agriculture is planning a survey of roadside markets in the State to determine the number, location, commodities handled and volume of each, length of time open, and other pertinent facts. Information obtained could show that more emphasis should be placed on this type marketing. If this is proved to be true, producers who usually sell all their tonnage wholesale may find they can receive a greater share of the consumer's dollar by aiding the development of roadside marketing. We believe that good roadside marketing programs with the support of all commodity groups will enhance the position of our New Jersey agriculture. This thinking must be true in many States. We plan to support our marketing program to the fullest extent.

I would like to discuss with you what we believe is necessary to make a good market and operator. The market should be on a site visible to the motorists from either direction in time to stop safely, provided that what people see is good. A good flow of traffic is desired but not necessary in all cases. Ample parking space off the highway is a big attraction. Trees, flowers, and shrubbery entice people to stop and enjoy pleasant surroundings. Freshly painted, well-lighted, neat and clean appearance is a necessity. Restroom facilities are a big attraction to the motoring public. The interior of the market must be well planned for the convenience of the operator and customer. Cold storage facilities are a must in most cases. Signs of proper size which are neat, easily read, and properly located will add to sales. Color combinations should be given careful study. Choice of products for sale should be made carefully. Ideal selling practices must be adhered to if a market is to pay off. One sure method is to treat a customer as you would like to be treated. Proper packaging, displaying, and pricing will add many sales.

The personal appearance of a market operator and employees should be neat and clean. After all, they are handling food. Prompt, courteous service and a good knowledge of the products for sale, even to cooking them, makes a customer glad she stopped.

In summary, by uniting markets and men practicing the recommendations just made, with an organization such as the one in New Jersey and supported by all commodity groups, leaves only one road to travel--that of success.

AGRICULTURAL TRANSPORTATION FROM THE PRACTICAL VIEWPOINT

James T. Duncan, Florida Fruit and Vegetable Association

Organization with the intent to accomplish! In this day of "Committees on Committees" organization with the intent to accomplish should be the principal purpose of all groups such as ours--the history of which Mr. Wayne of North Carolina has related to you. Let us consider for a moment some of the important areas, which require constant attention. Liaison alone points in many directions and I am sure we all agree is quite essential, particularly with our respective Congressional delegations, officials of USDA, State departments of agriculture throughout the country, Federal and State regulatory bodies, national and regional farm organizations, the railroads, the motor carrier industry, barge lines, steamship lines, and the air lines. Proper liaison provides the medium by which many problems may be solved across the conference table, but this approach, admittedly, is no cure-all.

Consequently, if our interests, the interests of transportation in agriculture, are to be protected, we must be prepared to step into the midst of any and all areas which appear to adversely affect transportation in our industry. The ability to undertake such a program naturally carries with it many problems. First of all, there must be a desire on the part of many responsible individuals. Perhaps we should limit our observations to State departments of agriculture throughout the country, although the same principles might well apply to many other groups. These departments of our State governments, of course, have widespread responsibilities, but among these responsibilities I believe all have within their jurisdiction MARKETING. Surely, the least

of the problems involved in marketing is not transportation. A student of transportation might very properly argue that it is the most important facet of the whole problem of marketing. At the same time, it might very well be said that of the many problems in the area of marketing, transportation generally receives the least preparatory attention.

All of the experts agree this country has developed the greatest transportation system in the world, that actually the development of the country has been in direct ratio to the development of transportation. However, now that we have this great transportation system, you find about as many opinions as you find experts as to how this vast enterprise shall be preserved for the present and directed in the future. Do not misunderstand my inference. We have problem areas develop in our transportation system just as in other segments of our economy, and if we are to be prepared to deal with these complexities as they arise, and arise they will, it is essential that we neither sit idly by or delegate to others our responsibilities of seeing that whatever is done, is done with the full knowledge of everyone concerned, with consideration of the views of all interests, and finally on basis of equitable solutions which experience in the field of agriculture dictates to be in the best interests of us all.

"People who think all is well in transportation are being deceived.

"People who think they are getting their money's worth in transportation are being cheated.

"And people who think transportation is ready to meet national emergencies may well be courting the ultimate disaster."

These are extracts from an address of the Honorable Daniel P. Loomis, President, Association of American Railroads, delivered before a Joint Seminar sponsored by the Five Train-Operating Brotherhoods and the School of Industrial and Labor Relations, Cornell University, Ithaca, N. Y., September 21, 1960. In the address entitled: "The Coming Revolution in National Transportation Policy," Mr. Loomis has much to say about the problems of the railroads. If you haven't already had the opportunity, I suggest you obtain and read the complete text of Mr. Loomis' address. It leaves little unsaid as to the railroads' intent to accomplish. The speech very effectively covers the AAR's program of "Seven Steps Toward Equal Treatment of all Carriers, A Balanced National Transportation System and Better Service for Everyone."

The United States Senate established a Transportation Study Group in early 1959 for the purpose of making a comprehensive study of the Nation's transportation system and policies. We hear from many sources that the Committee's report is expected to be released by January 31, 1961, that it will contain specific recommendations on how to solve many of our most pressing transport problems. It would be premature, of course, to make any comments upon what these specific recommendations may be, but whatever they happen to be, we should be prepared as an industry to evaluate carefully those areas that specifically deal with agriculture, and I feel sure we in agriculture will be dealt with, especially upon Section 203(b)(6) of the Motor Carrier Act, as the exemption generally (motor carriers and water carriers) was covered thoroughly in extensive hearings before the Study Group headed by General Doyle. As you might suspect, numerous suggestions were advanced in the committee sessions on this much discussed subject.

Are we in the State departments of agriculture prepared to deal effectively with whatever the final recommendation may be on the question of the agricultural exemption? In fact, are we actually in agreement either regionally or nationally as to whether or not any modification should be made in the present law? Unquestionably, every suggestion points to ways and means of accomplishing more regulation and in many instances without practical recognition of shippers' needs or a clear idea of how the suggestions for more regulation could be put into effect without creating more problems, dislocations and barriers both in agriculture and our general economy than the suggestions are allegedly designed to cure.

I can think of no time in our history when more things have just happened or are about to happen in the field of transportation. Confirm the question mark in your minds on this statement by casual reviews of The Wall Street Journal, The Journal of Commerce, Traffic World, Transport Topics, the study issued as information by the Interstate Commerce Commission entitled "Gray Area of Transportation Operations", and many others.

What has all this to do with the Agricultural Transportation Committee of the Southern States' Departments of Agriculture? To this, I answer, by repeating "it is essential that we neither sit idly by or delegate to others our responsibilities of seeing that whatever is done, is done with the full knowledge of everyone concerned, with consideration of the views of all interests and finally on basis of equitable solutions which experience in the field of agriculture dictates to be in the best interests of us all." In order to follow this line of reasoning, the State departments of agriculture must have an effective means of not only reaching common agreements upon issues at hand, but in presenting their views and recommendations at the proper times and at the appropriate places. If we in agriculture do not provide the leadership for the formulation of policies and procedures under which we shall operate in the years ahead, then we will continue to be on the defensive, and when our views do not prevail under these circumstances, we must then operate under conditions which others have determined to be, but may not be, in our best interests.

I have not undertaken to recommend solutions in any of the existing so-called problem areas. Neither have I indicated the existing policies of any particular agricultural group, section or area of the country with respect to these problem areas. My remarks were intended merely to provoke your thinking upon this very very important segment of our economy, one that is all-important to agriculture - TRANSPORTATION!

WHAT STATE DEPARTMENTS OF AGRICULTURE CAN DO
TO IMPROVE TRANSPORTATION

Robert C. Haldeman
AMS, U. S. Department of Agriculture

As one studying ways to lower transportation costs and to protect the quality of agricultural commodities and products while in transit, I am most concerned with what occurs with the results of research as embodied in the numerous reports that are published, both from within and outside the Government.

Overall research effort is probably useless unless the results are used to provide the consumer a better product at minimum marketing cost. Although considerable effort is made to have the agricultural and transportation communities use research findings, I am certain there is need for increased effort. Many of you, I am sure, will be interested in specific research results and the possibilities they offer in terms of protecting quality and minimizing costs.

Most fresh peaches now move to market by motortruck. Many are shipped in 1/2-, 3/4-, and 1-bushel baskets. These are semiconical in shape and when loaded in the conventional upright method produce light-density loads, resulting in poor utilization of loading space in the vehicle. Prior research had shown that the crosswise offset alternately inverted method of loading could be used for rail shipment of peaches, reducing basket damage by one-half and permitting the loading of more baskets in the car, reducing the cost per basket of transportation and refrigeration. Recent research covering shipment of peaches in baskets by motortruck reveals little damage to containers when they are loaded either in the conventional or alternatively-inverted method. But an additional 30 to 31 bushel baskets of fruit can be loaded in a standard semitrailer when the new loading method is employed. Elapsed time required to load by either method is almost the same and there is no significant increase in the amount of fruit bruising in transit, compared with the conventional upright load. Assuming adequate hydrocooling before loading and adequate in transit refrigeration, fruit temperatures will be about the same regardless of loading method employed.

Marketing Research Reports Nos. 275 and 420 give the details of this research. Use of this research would be more widespread if someone was available to demonstrate the method to shippers of peaches. A few in-plant demonstrations in the peach shipping areas of the several States would be most effective. But except for the test shipments themselves, generally researchers have little time to do this job. They must rely on others or research itself will falter.

Researchers also have found a new method of stacking 50-pound bags of potatoes in trucks that greatly improves the flow of air through the load during transit, thus reducing spoilage and lengthening shelf life. Eight air channels running from the front to the back of the trailer are provided and there is little, if any, loss of load capacity. To compensate for load space taken up by air channels, the load is stacked a little higher. Currently, about 2 percent of the early crop potatoes shipped by truck spoil enroute. Another 2 percent are lost in the retail store--the result, at least in part, of overheating during transit. The improved stacking method should cut these losses considerably, provide the public with better potatoes, and save money along the marketing line. But the shippers and truckers must be acquainted with the method and its advantages. (For detail, see Agricultural Marketing, May 1960).

During the decade of the 1950's, the cost of labor, packing materials, and transportation in the cauliflower industry has continued to rise. From California, the major producing State, some 100 million pounds move out-of-State annually. About 60 million pounds are fully trimmed, overwrapped, packed, and shipped as fully edible cauliflower. The trimming reduces shipping weight up to 70 percent. The remaining 40 million pounds are only partially trimmed, and packed and shipped in bulk containers.

For cauliflower placed in various conventional and experimental containers, research was undertaken to determine comparative costs of packing material, labor, and transportation. The research indicated that if the 40 million pounds of cauliflower now shipped out in bulk containers were to be fully trimmed, overwrapped, packed and shipped in master containers, shippers would save from \$125,000 to \$475,000 each year, depending on the bulk and master containers used.

Arrival condition of cauliflower at the terminal market was best in the fiberboard containers. Bruising and discoloration of all prepackaged cauliflower was less than for bulk cauliflower. Trade reaction was generally more favorable to the prepackaged product than to bulk packs. Comments indicated overwrapped cauliflower "reduced handling" and "sold better." During the course of the study prices of prepackaged cauliflower exceeded comparable prices for bulk cauliflower. Growers and packers in California cooperated and in 1959, about 60 percent of California cauliflower for the fresh market was prepackaged for shipment. This research offers good possibilities for other areas. You can play an important part in informing and encouraging the industry to accept such innovation. Full details of this study are reported in MRR No. 414.

Most of the around one billion pounds of turkeys produced annually in the United States are now marketed frozen. Many are hauled long distances. Frozen turkeys require sturdy, well designed containers that can withstand the rigors of storage in high stacks, and of long, jolting shipments, and that will not tip or collapse. There is also need for container standardization. Processors, warehousemen, and haulers agreed that a container that would permit a good fit was seriously needed since many existing containers resulted in much damage to both the containers and contents. The resulting research embodied accumulation of information that would be helpful in selecting and developing containers, at the lowest possible cost, that would effectively protect the contents and minimize problems in handling, moving, and storing frozen turkeys. Five conventional containers were selected for study.

In over-the-road tests, about 29 percent of the experimental containers received slight to moderate damage. There was no product damage, and only 42 of the 400 turkeys inspected showed minor damage to their film wrappers. Of the containers tested, the one showing least damage was a full-telescope box with cutaway sides and ends, reinforced with corner posts. This was the most expensive container tested. In contrast, the cheapest container--a one-piece fiberboard box--received the second lowest incidence of damage, and although it creased and scuffed more, there was no product damage. This container cost 30 cents less per unit, or \$240 less for an average truckload of 800 containers. The research identified the more acceptable containers. The results point to packaging savings for the processor and less container damage in transit. The detailed study is reported in MRR 354.

Another important phase of transportation research involves the equipment used to transport perishable commodities. Research has shown frozen food should have a product temperature of 0°F. or lower in transit from packers to retailers, if maximum quality is to be retained.

Refrigerated transportation equipment, including the over-the-road trailers as well as delivery trucks, moving from wholesalers to retailers must be able to

maintain constant temperatures throughout a load of perishable food. Numerous tests, conducted by qualified engineers, have shown that many vehicles used to move perishables are unable to maintain desired temperatures. Through industry and Government cooperation, recent research has developed a rating method for refrigerated trailer bodies. Prescribed testing equipment and procedures have been developed so that buyers of trailers can be assured of securing equipment that meets prescribed specifications embodying temperature maintenance requirements. The development of the rating method is a major breakthrough and should lead to delivery of better quality perishable foods. You can lend your support by bringing this research to the attention of those who can benefit from it -- the grower, processor, trucker, and buyer. The rating method is described in MRR No. 433.

The Association of Food and Drug Officials of the United States, including State officials and trade representatives, has formulated and recommended a code specifying temperature tolerances for the movement and handling of frozen foods. Transportation provisions of the code are designed to maintain the nutritive value of frozen food while in transit. Excessive exposure of frozen foods to ambient temperatures is common--they stand for hours on unloading docks, in backrooms, on carts in the sales areas, or under tables in display areas. Vans often are not precooled prior to loading. Protective devices such as curtains are not used during loading and product and van temperatures rise. Inadequate cold air circulation around loads is common, resulting in variable product temperatures within a load, usually above desired temperatures.

Generally, trucks used in deliveries to retailers carry both perishables and staples and truck body temperatures often are too high for adequate protection of frozen food. Many retail establishments are not properly equipped with refrigerated storage capacity or adequately refrigerated display equipment. Obviously frozen food quality suffers under such conditions. The trade should be encouraged to do a better job and specific safeguards should be cooperatively formulated and enforced. The wealth of research on the subject should be brought to the attention of all elements of the trade, to processors, retailers, and consumers.

In 1957, a study was made of baby chick transportation. While equipment used varies widely, this study (MRR 267) indicates how hatcherymen have successfully met some of the problems encountered under difficult conditions. Here is information that can prove most helpful to hatcherymen and truckers of chicks, all embodied in a 20-page report.

Much research also has been done on the truck transportation of hogs in hot weather. It indicates the specific advantages of sprinkling the animals while in transit when temperatures are 80°F. or higher. Such sprinkling was found to cut down hog deaths, to reduce shrinkage in hog weights, and to increase dressing yields. Low cost sprinkling system designs are incorporated in the published studies, MRR 172 and MRR 374.

Packaging, loading and handling methods, and equipment improvement are not the only phases of transportation research. Much valuable information also is available in the field of transport economics. Many of you are familiar with the work of the North Central Grain Marketing Committee. This group includes

economists from the land grant colleges in the North Central States. For a period of years they have surveyed grain transportation and found increasing movement by motortruck. Their findings have been supplemented by some Department work, and there is now rather complete information for that region, showing not only the relative importance of trucks, railroads, and water carriers in moving grain, but also the reasons why shifts from one mode of transport to another have occurred. The developed facts presented in the several studies provide a wealth of information that can be utilized by State departments of agriculture, both in formulating positions on pertinent transportation matters for presentation to regulatory groups, and in advising grain shippers, processors, and carriers regarding steps needed to meet the changing conditions. One Federal extension worker told me recently that this information had been most helpful to him in presenting certain facts pertinent to the location of a new grain elevator and needed facilities.

An extensive grain and grain products transportation survey will begin shortly in the South. It is being undertaken by the Southern Grain Marketing Technical Committee, and I urge your full cooperation with the land grant college representatives. With the expanding demand for grain in the South, we need more economic data on transportation. It is important that the scope of pertinent facts be known, decisions made, and a broad base of support be available to implement the decisions in legislative chambers, the courts, and at the regulatory level. The part you might play includes presenting agriculture's viewpoint to your regulatory bodies and to the Department of Agriculture.

What I have said is only a sketch of what I feel a transportation specialist serving a State department of agriculture could do to improve transportation. You will note I have emphasized the use of existing research findings--to facilitate the movement of agricultural products. These would form a basis for discussion with interested groups in the State and this informative service would do much to implement the research findings. Assembly and interpretation of published research findings would be important. This would require a man with a formal education background at the college level, but not an advanced degree in transportation, marketing, or economics. Perhaps most important would be the ability to communicate, orally and/or in writing, to adjust to new or varying situations, to work harmoniously with others, and the ability to grasp and apply to the job at hand the knowledge gained through study and experience. The selected man should be creative and original--not set in his ways, because transportation is a field of constant innovation. Familiarity with agribusiness and an appreciation of the farmers' importance in the economy also would be helpful.

When a particular transportation question arises requiring the views of those in the State who will be most affected by the answer, the transportation specialist should call on these people, individually or as a group, clearly explain the pertinent facts he has in hand--seek additional information and views--formulate an opinion, and recommend specific action. As I noted earlier, to the extent this procedure can reflect the desired action of those in several States, it will be that much more effective, and you may wish to consider work in this field supported by and embracing several States.

WHAT STATE DEPARTMENTS OF AGRICULTURE CAN DO
TO IMPROVE TRANSPORTATION

Dewey C. Wayne, North Carolina Department of Agriculture

For several years, Commissioner Ballentine of North Carolina has been chairman of the Transportation Committee of the National Association of State Departments of Agriculture. He has endeavored to bring about a proper recognition of transportation in the agricultural field by suggesting the procurement of qualified transportation personnel in State departments of agriculture. To my knowledge, I know of only four States which actually have either full-time or specified part-time transportation people. My survey may be incorrect but I believe these States are Georgia, North Carolina, Virginia, and Wisconsin. A number of the States do assign transportation as an added complement to other duties. This is particularly evident in the representation on the Southern States Transportation Committee. It is my view that transportation is one of the most important segments of destination prices in marketing, varying in degree as to the bulkiness, value, and distance the agricultural commodity is to be moved. All of these factors affect the transportation cost, and the transportation cost percentage of value or selling price at destination varies from 1 percent to more than 50 percent. Selling price at destinations controls sale and marketing, and if the transportation take is too great, you might as well let your agricultural product rot on the field.

In speaking before the American Society of Traffic and Transportation recently, Mr. John J. Allen, Jr., Undersecretary of Commerce for Transportation, generalized the educational training he thought necessary for transportation specialists. He inferred that college or university training and study was desirable in economics, management, engineering, law, and such other subjects, "So far as they relate to transportation." At the same time, he advocated that the trainee should select one of these areas as a major subject, becoming in his own right an economist, manager, engineer, or lawyer. I am afraid it will be a long time before the individual State departments of agriculture will find personnel with such an educational background at the salary most States offer for State employee positions. Personally, I do not believe that you have to have quite this much polish in order to look at the facts of life with respect to agricultural transportation and recognize the changes now occurring and the dangers which lie ahead.

While local circumstances differ in the 50 States, there are certain patterns applicable to all. North Carolina, for instance, is dependent to a large extent upon exempt motor transportation with respect to most agricultural products, under the provisions of the Interstate Commerce Act and by specific order intrastate of the North Carolina Utilities Commission.

There are, of course, two sides to the question of exempt motor transportation and I am not one of those that believes exempt transportation should be extended beyond reasonable limits. I do not believe in a strict adherence of "farm to market exemption" but do believe that the present list of specified commodities, issued by the Interstate Commerce Commission, is a vanguard of sensible protection for all forms of transportation, including exempt motor. I do not believe that any State department of agriculture should advocate or condone

some of the so-called buy and sell practices frequently being exposed. I believe that each State department of agriculture should offer to assist in the proper policing of exempt hauling. This can be done through special licensing, certificates, or some method equitable to all concerned. Exempt transportation of agricultural products is being taken advantage of to the detriment of regulated carriers, and I think that agriculture should step in and try to suggest methods and plans conducive to correction.

I do not know what the exempt situation is in each of your States but I do think it is important that some type of protection for all concerned be evolved. The railroads are now requesting exemption of agricultural products from rate regulation via rail or the abolition of the present motor exemption under Section 203 b(6) of the Interstate Commerce Act. I think that the State departments of agriculture should collectively consider this question very carefully. Quite frankly, it is my view that there is much merit to the railroad request.

Although I realize the subject for this period of discussion deals with what the State departments of agriculture can do to improve transportation, I think we had best first determine methods and means to hold the transportation we now have available. Local and geographical conditions vary as to what might be termed improvement. In North Carolina, we seem to get along very well, although there are many new problems which occasionally arise. Everything in North Carolina does not move by truck. We do have substantial rail movements.

Exempt transportation is many times erroneously used when bona fide private transportation is actually intended. In our area of the country, regulated motor carriers shy away from basic agricultural commodities as they would smallpox germs or a truckload of skunks. We had a shipment which we wanted to move from eastern North Carolina to Memphis, Tenn., and solicited the cooperation of a regulated carrier to handle this one shipment. We finally got a rate but found that it was cheaper to buy a truck than to pay the rate this regulated carrier wanted to charge for one haul. Our regulated motor carriers take the attitude with agriculture, "please just stay away and let us alone." The railroads offer once or twice a week service from some points and their high speed cannonballs move through North Carolina faster than the few crack passenger trains they have left. They are not too interested in a carload of watermelons or sweet potatoes from Podunk Switch or Whistle Stop Gap.

Again being practical, I do not believe there is too much that any one State may do on its own without cooperation with other States. While a certain amount of agricultural products moves over regulated common carriers, rail or motor, there are States, regions and commodities where the products move largely, if not entirely, via exempt carriers. Even the States which use common carrier service are influenced as to service and rates by current exempt motor carriage. However, an exempt hauler is now usually available and a great degree of dependence is now placed by agriculture in these so-called exempt haulers. Primarily, a large proportion of exempt haulers are owner operators or small businessmen trying to make a livelihood. Many of them work through brokers, to whom a percentage is paid, many own only one tractor and trailer, usually with a mortgage and heavy payments due. Any disaster to agriculture making unavailable loads ordinarily anticipated may cause dire distress to these owner operators and a material depletion in their number would jeopardize agricultural marketing.

Some of these operators are successful and are able to buy additional equipment and arrange for drivers to operate the equipment for them. Between certain points, specific rates may be set and charged but in many instances, varying percentages and rates are worked out as to individual hauls or movements. Agriculture is, therefore, intertwined and dependent upon a large group of small investors transporting commodities in so-called exempt transportation. Generally speaking, these operators have been willing to perform their service at a nominal profit, lower than the rates of regulated carriers. While there are a large number of cooperatives and some individual agricultural common carrier haulers, agriculture has never given too much consideration to transportation because of the low cost service which it has found available to itself through exempt transportation. There is presently no large investment in equipment by agriculture available for use in piggyback service. The type of haulers which operate in exempt service for agriculture are, generally speaking, unorganized, both as to unions or for legislative protection of their livelihoods. Agriculture should give consideration to the situation in which it now finds itself with respect to transportation, because the trend is to eliminate the so-called favorable circumstances under which agriculture now performs its marketing.

I hope that eventually a sufficient number of the State departments of agriculture will organize sufficiently to enable geographical areas, and even national cooperation, to be felt so effective in legislation and other matters that the individual farmers will be protected. The individual farmer cannot do much for himself in the present maze of transportation problems and neither can one individual State. The problem requires collective action and I am hopeful that this may grow rapidly enough to offset the danger which I feel is ahead, even though we are now saying, "We never had it so good." Agricultural transportation policies should be determined by State departments of agriculture and the burden not placed solely in the large farm organizations. The State departments should cooperate with the National Grange, the Farm Bureau, the American Cooperatives and other organizations, but should review and act from the regulatory viewpoint.

HOW TO DEVELOP A TRANSPORTATION PROGRAM IN A STATE DEPARTMENT OF AGRICULTURE

William C. Crow, AMS, U. S. Department of Agriculture

In the previous discussions many transportation problems which State departments of agriculture can help solve have been pointed out. These problems fall into several categories. Some concern getting the right kinds and amount of transportation equipment at the time needed to move products. Others involve the method of loading such equipment or a choice of the method of transportation to be used. Still others have to do with the use of the right kinds of container, the type of protective services needed, and charges. In some situations action is needed to effect changes in transportation rates or to modify regulations. Sometimes a stand needs to be taken on proposed legislation.

Despite the fact that the output of our farms would have little value if the products were not transported, most State departments of agriculture and divisions of markets have carefully avoided getting into the subject of transportation. Fortunately this situation is changing. The Transportation

Committee of the National Association of State Departments of Agriculture, under Commissioner Ballentine's leadership, has given work in this field quite a push. The Committee set up by the Southern States, which is meeting with us today, is making a real contribution. As a result several State departments of agriculture have put transportation specialists on their staff.

Admittedly transportation is a technical subject, one which cannot be handled by a person in another field getting into transportation semi-occasionally. If a State is to do anything worthwhile, the problem will have to be approached more seriously than this. First, the head of the department or of its marketing division will need to discuss transportation with farm organizations and trade groups to make a list of the problems on which action is needed and the department can make a contribution.

Having determined the problems to be worked on, the State department will then need to employ some adequately trained or experienced person to devote his time to transportation. Preferably such a person should have taken transportation courses and have had previous employment in the field. However, well trained transportation specialists are very scarce. It may be necessary to take a person trained in marketing who has an interest in transportation work, making it possible for him to learn on the job. This he can do if he has the right qualifications, will apply himself, and can be kept on the assignment long enough.

When the decision has been made as to the transportation work to be undertaken and a person designated to specialize in it, this person will find several ways to go about his work. First, he should familiarize himself with the results obtained from transportation research applicable to his problems. This can be done by reading publications on the subject and, where necessary, talking with the person who did the research. Second, he might take one or more courses in transportation, if a school offering such courses is accessible. Third, he can work with transportation people in industry, in other State agencies, or in the United States Department of Agriculture. By so doing he will increase his knowledge of the subject. Finally, when we reach the place where several States are carrying on transportation work, workshops or clinics can be arranged where the entire program would be planned around the activities being carried on or contemplated.

Another point that should not be overlooked is that the transportation specialist of the State department of agriculture should do much of his work in cooperation with others. A great deal can be accomplished by working directly with the carriers. Some activities require cooperation with shippers and receivers. Cooperation with research people can be helpful both to the research man and to the transportation specialist in the State department. On some types of problems the transportation men of several States need to work together, and coordinate their efforts with those of the transportation regulatory bodies.

By using approaches such as I have described a State department of agriculture can make a real contribution to the solution of transportation problems. Let us not overlook the fact that transporting products from the farm to the consumer is one of the most important tasks involved in marketing. As long as this subject is overlooked a State cannot have a balanced marketing service program.

CONCLUSIONS AND RECOMMENDATIONS

of Work Group on Special Topics

Forest products

Discussion by the group, following presentations of several talks on improvements in marketing forest products, resulted in these conclusions:

1. Price reporting has progressed to the point of reporting prices that are statistically acceptable within the limits posed by presenting existing products standards.
2. This information is being well received by the small woodland users and the rest of the forestry industry as well, including mill operators, lumber associations, and other trade groups.
3. The availability of price information has permitted one western State to evaluate the environment in which small woodlot owners operate.
4. Market information on input-output of Christmas trees in one State has provided data essential to market analysis. For example, as a result of this work, it is now known that annual sales of Christmas trees in this State are around 1.5 million, but its inventory of trees is around 84 million.
5. Forest market reporting has made great progress but further advances will be related to progress in developing and adopting uniform grades and standards.
6. Recommendations for next year's program would include how to make forest products market reports uniform by States, how to obtain adequate statistical samples and accurate price information, proper product identification, the elimination of wide price range through application of grades, a report of 1961 work on log grading, and determine ways of making stumpage prices more factual.

Roadside markets

The second major topic discussed by the group was that of improving roadside market operations. Some of the State departments of agriculture along with farm organizations are beginning to recognize the importance of working with roadside market operators to improve their operations. Some of the conclusions reached by the group, based on the work one State has engaged in with roadside markets and on the experience of persons present at this session are:

1. The roadside market situation has been improved in one State by the State department of agriculture and other State agencies helping some of the market operators to organize an association for their mutual benefit. Some of the major accomplishments of this association are: (a) Provided needed market promotion by means of radio and television; (b) developed and put into practice

a code of ethics; (c) promoted quality control for the benefit of the consuming public; (d) better merchandising and sanitation; and (e) initiated cooperative purchasing of supplies as a means of reducing operating costs.

2. It was emphasized that the success of roadside markets is dependent upon (a) effective promotion, (b) adequate and convenient parking, (c) clear and complete price marking, (d) a pleasing personality on the part of the market operator, (e) attractive packaging, and (f) proper sanitation, including pest control.

3. In the interest of the consuming public, market operators, and producers, more research concerning the operations and control of roadside markets is needed.

4. There needs to be a greater exchange of ideas and information among the State departments of agriculture and other public agencies on roadside market problems. This would encourage the development and adoption of acceptable uniform methods, techniques, and controls. Progress reports are needed from the States as to what they are doing or considering along these lines. These reports should be compiled during the coming year and presented at the next workshop.

Agricultural transportation

The importance of agricultural transportation problems and what State departments of agriculture can do to improve transportation was discussed in detail. Conclusions reached by the group follow:

1. Group action among all the States is needed to deal with the rapidly changing transportation picture as it affects agriculture, i.e., competition among the various types of transportation as reflected in rates and services. These problems are identified by such general topics as (a) carrier taxation, (b) agricultural exemption and bulk commodity exemptions (equalize regulation), and (c) the efforts of carriers to diversify. To cope with these and other problems, 10 southern States have formed a Transportation Committee. Their motto is "Organization with intent to accomplish."

2. Put research findings to work. Numerous research findings dealing with a host of problems such as food packaging, loading methods, protective services in transit, transportation equipment, and economic analysis are available. Further efforts are needed to implement this research.

3. Only four States now have transportation specialists within the State department of agriculture. Consideration should be given to employing additional personnel to put available research to use among producers, shippers, processors, marketing agencies, carriers, and consumers.

4. Some recommendations on how to develop a transportation program in a State department of agriculture:

- a. Identify your transportation problems
- b. Make these problems known to your State farm organizations and other interested parties

- c. Employ transportation specialists (on-the-job training is important)
- d. Your specialist must consult and cooperate with all the groups in the State having an interest in transportation
- e. States not now having a program might become more interested in transportation if broad problems that affect several States are used as focal issues. For example, many Midwestern States are vitally interested in transportation as it is affected by the St. Lawrence Seaway and the Inland Waterways.

5. The group strongly recommended that another transportation session be held at the next National Marketing Service Workshop. Arrangements in scheduling should permit State commissioners of agriculture to participate.

PERSONS ATTENDING THE WORKSHOP

Adcock, Joseph E.	Ill. Dept. of Agriculture	Ottawa, Ill.
Alampi, Phillip	N. J. Dept. of Agriculture	Trenton, N. J.
Alexander, W. H.	Louisiana State University	Baton Rouge, La.
Allen, Byron G.	Minn. Dept. of Agriculture	St. Paul, Minn.
Amedee, Roy F.	Winn Dixie Stores, Inc.	New Orleans, La.
Anderson, W. W.	Md. State Board of Agriculture	College Park, Md.
Arnold, W. C.	Ga. Dept. of Agriculture	Atlanta, Ga.
Avery, Jesse	Miss. Dept. of Agriculture and Commerce	Meridian, Miss.
Ball, B. Dale	Mich. Dept. of Agriculture	Lansing, Mich.
Ballentine, L. Y.	N. C. Dept. of Agriculture	Raleigh, N. C.
Barron, Wade	Ark. Livestock Sanitary Board	Little Rock, Ark.
Bartholomew, David M.	Kans. State Board of Agriculture	Topeka, Kans.
Bennett, J. Frank	Calif. Dept. of Agriculture	Sacramento, Calif.
Beridon, O. P.	La. Dept. of Agriculture and Immigration	Hamburg, La.
Binger, Carl L.	Florida Egg Commission	Tampa, Fla.
Black, William E.	Florida Citrus Commission	Lakeland, Fla.
Blakemore, Chester	Fla. Dept. of Agriculture	Tallahassee, Fla.
Blum, John C	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Boone, I. V.	Miss. Dept. of Agriculture and Commerce	Monticello, Miss.
Boss, Bernadine	N. Dak. Dept. of Agriculture and Labor	Bismarck, N. Dak.
Boster, Dewey O.	Pa. Crop Reporting Service	Harrisburg, Pa.
Box, S. W.	Farmers' Central Market	Jackson, Miss.
Branch, Joe L.	Miss. Dept. of Agriculture and Commerce	Smithdale, Miss.
Brasfield, Kenneth H.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Bray, C. Harold	Ky. Dept. of Agriculture	Frankfort, Ky.
Brinson, Emory L.	Ga. Dept. of Agriculture	Atlanta, Ga.
Broadbent, E. E.	University of Illinois	Urbana, Ill.
Brown, Albert	Colo. Dept. of Agriculture	Denver, Colo.
Brown, Leo P.	Minn. Dept. of Agriculture	St. Paul, Minn.
Bruce, Richard W.	Washington State University	Pullman, Wash.
Bufkin, T. S.	Miss. Extension Service	Jackson, Miss.
Butterfield, Roy	Radio Station WLOX	Biloxi, Miss.
Byrd, H. W.	La. Dept. of Agriculture and Immigration	Baton Rouge, La.
Callaway, R. P.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Campbell, Wallace L.	Ky. Dept. of Agriculture	Stamford, Ky.
Carpenter, Roswell D.	U. S. Forest Service	Columbus, Ohio
Charron, William P.	Maine Dept. of Agriculture	Augusta, Maine
Clark, Harold O.	Vt. Dept. of Agriculture	Barre, Vt.

Chick, George H.	Maine Dept. of Agriculture	Augusta, Maine
Clithero, W. A.	International Business Machines	Chicago, Ill.
Coddington, James W.	U. S. Dept. of Agriculture	New Orleans, La.
Collins, Edward C.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Conyers, L. N.	Va. Dept. of Agriculture and Immigration	Richmond, Va.
Converse, Ray B.	AMS, U. S. Dept. of Agriculture	Jackson, Miss.
Cooper, J. Ward	Michigan Farm Bureau	Lansing, Mich.
Corley, Si	Miss. Dept. of Agriculture and Commerce	Jackson, Miss.
Cox, Clifton B.	Purdue University	Lafayette, Ind.
Cox, S. A.	Miss. Dept. of Agriculture and Commerce	Jackson, Miss.
Crothers, John L.	Md. State Board of Agriculture	College Park, Md.
Crow, William C.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Currie, Lyle W.	Red River Valley Potato Growers Association	East Grand Forks, Minn.
Dahl, Math	N. Dak. Dept. of Agriculture and Labor	Bismarck, N. Dak.
Dale, Jack	Miss. Dept. of Agriculture and Commerce	Jackson, Miss.
Dalrymple, Daniel M.	N. Y. Dept. of Agriculture and Markets	Albany, N. Y.
Davis, Stanley R.	Davis Brothers Restaurants	Atlanta, Ga.
Davis, W. W.	Davis Brothers Restaurants	Atlanta, Ga.
Dearman, Donald G.	Miss. Dept. of Agriculture and Commerce	Lumberton, Miss.
De Cuir, Walter J.	La. Dept. of Agriculture and Immigration	Baton Rouge, La.
Douglass, Oneta	Miss. Dept. of Agriculture and Commerce	Jackson, Miss.
Duncan, James T.	Florida Fruit and Vegetable Association	Orlando, Fla.
Duncan, Spencer G.	N. Y. Dept. of Agriculture and Markets	Albany, N. Y.
Dyer, Boyce	Ga. Dept. of Agriculture	Atlanta, Ga.
Eisendrath, C. H.	Daily Herald	Biloxi, Miss.
Englund, Walter J.	Calif. Dept. of Agriculture	Sacramento, Calif.
Ewing, Winston	Mo. Dept. of Agriculture	Columbia, Mo.
Fain, Ed	Colonial Stores, Inc.	Atlanta, Ga.
Faison, O. W.	N. C. Dept. of Agriculture	Raleigh, N. C.
Faller, Marvin A.	La. State Market Commission	Baton Rouge, La.
Feduccia, Lawrence N.	La. Dept. of Agriculture and Immigration	Baton Rouge, La.
Fenger, George A.	Miss. Dept. of Agriculture and Commerce	Jackson, Miss.

Firth, Joseph	N. Y. Dept. of Agriculture and Markets	Albany, N. Y.
Foreman, Davis	Ill. Dept. of Agriculture	Springfield, Ill.
Forman, Bill	Okla. State Board of Agriculture	Okmulgee, Okla.
Fox, Tom	Okla. State Board of Agriculture	Oklahoma City, Okla.
Franklin, A. J.	Miss. Extension Service	Jackson, Miss.
Fulkerson, Harry	Ill. Dept. of Agriculture	Springfield, Ill.
Germany, Ralph	La. Dept. of Agriculture and Immigration	Baton Rouge, La.
Gibbs, Marjorie A.	Michigan State University	Detroit, Mich.
Gilbert, Samuel J.	Iowa Dept. of Agriculture	Des Moines, Iowa
Gilchrist, Jack	Ga. Dept. of Agriculture	Atlanta, Ga.
Ginn, John L.	AMS, U. S. Dept. of Agriculture	Orlando, Fla.
Gray, Victor M.	Mo. Dept. of Agriculture	Jefferson City, Mo.
Grigsby, Reid M.	Louisiana State University	Baton Rouge, La.
Gulley, W. E.	N. C. Dept. of Agriculture	Raleigh, N. C.
Gunter, Sam H.	American Dairy Association	Jackson, Miss.
Haase, W. C.	Swift and Company	Chicago, Ill.
Haldeman, Robert C.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Harris, Clarence	N. C. Dept. of Agriculture	Raleigh, N. C.
Harris, J. R.	Iowa Dept. of Agriculture	Des Moines, Iowa
Harrison, M. G.	Miss. Dept. of Agriculture and Commerce	Florence, Miss.
Hartley, Harold J.	American Farm Bureau Federation	Chicago, Ill.
Hawes, H. G.	Maine Dept. of Agriculture	Augusta, Maine
Hays, James T.	New Orleans Area Terminal Board	New Orleans, La.
Helbacka, Norman V.	University of Maryland	College Park, Md.
Henderson, Peter L.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Henning, W. L.	Pa. Dept. of Agriculture	Harrisburg, Pa.
Hester, Daniel B.	Miss. Dept. of Agriculture and Commerce	Stoneville, Miss.
Hickling, William C.	N. Dak. Dept. of Agriculture and Labor	Bismarck, N. Dak.
Hicks, Robert E.	Ga. Dept. of Agriculture	Atlanta, Ga.
Hindman, Ruel	Ill. Dept. of Agriculture	Springfield, Ill.
Hockaday, James F.	N. C. Dept. of Agriculture	Raleigh, N. C.
Hoecker, Raymond W.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Hoffman, Milton	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Holkesvik, Roger	N. Dak. Dept. of Agriculture and Labor	Bismarck, N. Dak.
Holland, Louis	Md. State Board of Agriculture	Salisbury, Md.
Hume, David L.	FAS, U. S. Dept. of Agriculture	Washington, D. C.
Irwin, Charles	Ky. Dept. of Agriculture	Hopkinsville, Ky.
Jackson, Clyde W.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Jennings, Matt	Tenn. Dept. of Agriculture	Nashville, Tenn.
Johnson, Jack D.	Louisiana State University	Baton Rouge, La.
Johnson, John T.	W. Va. Dept. of Agriculture	Charleston, W. Va.

Johnson, L.W.	Miss. Dept. of Agriculture and Commerce	Tylertown, Miss.
Johnson, Roy	La. Dept. of Agriculture and Immigration	Baton Rouge, La.
Johnston, Harvey L.	Mo. Dept. of Agriculture	Jefferson City, Mo.
Jones, Paul B.	Miss. Dept. of Agriculture and Commerce	Senatobia, Miss.
Juers, Linley E.	Wisconsin Council of Agriculture	Madison, Wis.
Keeling, Ralph C.	Iowa Market Board	Des Moines, Iowa
Keener, Pyron	Ala. Dept. of Agriculture and Industries	Montgomery, Ala.
Kemper, George D.	W. Va. Dept. of Agriculture	Weston, W. Va.
Kennedy, Maurice V.	Miss. Dept. of Agriculture and Commerce	State College, Miss.
Kiker, York	N. C. Dept. of Agriculture	Raleigh, N. C.
Kilpatrick, Lester	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Koontz, Russell	Tex. Dept. of Agriculture	Austin, Tex.
Kost, Frederick J.	Louisiana State University	Baton Rouge, La.
Lacey, Clyde D.	Okla. State Board of Agriculture	Oklahoma City, Okla.
Lantz, Fred	W. Va. Dept. of Agriculture	Charleston, W. Va.
Lennartson, Roy W.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Lewis, Morris	Lewis Grocery Company	Indianola, Miss.
Luckett, C. D.	Miss. Dept. of Agriculture and Commerce	Vicksburg, Miss.
McFadden, Dudley E.	American Bakers Association	Chicago, Ill.
McKee, James F.	Miss. Dept. of Agriculture and Commerce	Starksville, Miss.
McLaughlin, Frank	W. Va. Dept. of Agriculture	Charleston, W. Va.
McMaster, Thomas A.	Mont. Dept. of Agriculture	Helena, Mont.
McPherson, W. K.	University of Florida	Gainesville, Fla.
McWilliams, A. L.	Pure Milk Association	Chicago, Ill.
Macomb, Richard	Florida Egg Commission	Tampa, Fla.
Magee, Ellis C.	La. Dept. of Agriculture and Immigration	Baton Rouge, La.
Mahoney, John E.	Md. State Board of Agriculture	College Park, Md.
Majors, K. R.	FES, U. S. Dept. of Agriculture	Peoria, Ill.
Manasco, C. H.	Miss. Extension Service	Jackson, Miss.
Martin, Hugh B.	N. C. Dept. of Agriculture	Raleigh, N. C.
Martin, Maurice M.	Pa. Dept. of Agriculture	Harrisburg, Pa.
Martindale, E. D.	Miss. Extension Service	State College, Miss.
Mason, Judson P.	National Milk Producers Fed.	Washington, D. C.
Massey, H. R.	Mississippi Livestock Producers Association	Jackson, Miss.
Matheson, John L.	N. Y. Dept. of Agriculture and Markets	Albany, N. Y.
May, W. H.	Miss. Dept. of Agriculture and Commerce	Meridian, Miss.

Miller, Alan R.	W. Va. Dept. of Agriculture	Charleston, W. Va.
Moats, Robert H.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Moffett, Grant	Va. Dept. of Agriculture and Immigration	Richmond, Va.
Mohler, Lowell	Kans. State Board of Agriculture	Topeka, Kans.
Monroe, L. L.	Miss. Extension Service	Jackson, Miss.
Murphy, W. J.	N. Dak. Dept. of Agriculture and Labor	Bismarck, N. Dak.
Norman, Hudson	Ga. Dept. of Agriculture	Thomasville, Ga.
Olson, Don	Wash. Dept. of Agriculture	Olympia, Wash.
Owens, James B.	Fla. Crop Reporting Service	Orlando, Fla.
Parsons, Rex	Washington Fryer Commission	Seattle, Wash.
Pasternak, Mildred	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Pearce, Dave L.	La. Dept. of Agriculture and Immigration	Baton Rouge, La.
Pendarvis, L. T.	Fla. State Marketing Bureau	Jacksonville, Fla.
Peterson, Walter F.	La. Dept. of Agriculture and Immigration	Bienville, La.
Petr, Jim	Kans. State Board of Agriculture	Topeka, Kans.
Pierce, John C.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Pruitt, Jonah	Ark. Livestock Sanitary Board	Little Rock, Ark.
Rainey, John L.	Pa. Dept. of Agriculture	Harrisburg, Pa.
Randell, C. G.	FCS, U. S. Dept. of Agriculture	Washington, D. C.
Ray, Lew	Colo. Dept. of Agriculture	Denver, Colo.
Remley, John L.	Ohio Dept. of Agriculture	Columbus, Ohio
Rhodes, A. J.	Louisiana Power and Light Co.	New Orleans, La.
Rhodes, Gifford	Fla. State Marketing Bureau	Jacksonville, Fla.
Risher, F. W.	Fla. State Marketing Bureau	Jacksonville, Fla.
Roberts, Woodrow W.	La. Dept. of Agriculture and Immigration	Baton Rouge, La.
Robertson, Edythe L.	Slater Food Service Management	Washington, D. C.
Robertson, Norris	Miss. Dept. of Agriculture and Commerce	Myrtle, Miss.
Roddy, John J.	Ohio Dept. of Agriculture	Columbus, Ohio
Ronken, Carmen	Miss. Extension Service	Jackson, Miss.
Rouse, W. L.	Kentucky Milk Market Commission	Frankfort, Ky.
Rowell, Paul T.	Oreg. Dept. of Agriculture	Salem, Oreg.
Roy, Ewell P.	Louisiana State University	Baton Rouge, La.
Sanderson, Walter	Mo. Dept. of Agriculture	Jefferson City, Mo.
Savage, Job K.	FCS, U. S. Dept. of Agriculture	Washington, D. C.
Schaible, K. W.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Schultz, H. W.	Oregon State College	Corvallis, Oreg.
Scott, Leon	Miss. Dept. of Agriculture and Commerce	Jackson, Miss.

Seaton, George	Ga. Dept. of Agriculture	Atlanta, Ga.
Shannon, George W.	WWL Radio and TV	New Orleans, La.
Sharp, H. K.	Okla. State Board of Agriculture	Oklahoma City, Okla.
Sheffield, Leslie F.	Great Plains Wheat, Inc.	Garden City, Kans.
Shelnut, Charles F.	Mass. Dept. of Agriculture	Boston, Mass.
Siedschlag, E. W.	S. C. Extension Service	Columbia, S. C.
Smith, Claude	Miss. Federated Cooperatives	Jackson, Miss.
Smith, H. A.	N. C. Dept. of Agriculture	Raleigh, N. C.
Smith, H. W.	Ky. Dept. of Agriculture	Frankfort, Ky.
Souther, Richard C.	Maine Dept. of Agriculture	Augusta, Maine
Spry, Clyde	Iowa Dept. of Agriculture	Des Moines, Iowa
Stark, Dick	Fla. State Marketing Bureau	Jacksonville, Fla.
Stevenson, James H.	Purdue University	Lafayette, Ind.
Stiles, John D.	W. Va. Dept. of Agriculture	Charleston, W. Va.
Strayer, George M.	American Soybean Association	Hudson, Iowa
Strickland, J. Marvin	Ga. Dept. of Agriculture	Waycross, Ga.
Stringfield, Ray M.	La. Dept. of Agriculture and Immigration	
	Wis. Dept. of Agriculture	Hammond, La.
Struck, Vernon C.	Michigan Farm Bureau	Madison, Wis.
Stuckman, Noel, W.	AMS, U. S. Dept. of Agriculture	Lansing, Mich.
Susott, Art		Atlanta, Ga.
Tarleton, Curtis F.	N. C. Dept. of Agriculture	Raleigh, N. C.
Taylor, Paul	N. J. Dept. of Agriculture	Trenton, N. J.
Thayer, Robert F.	Wis. Dept. of Agriculture	Madison, Wis.
Thompson, Lee	Fla. Dept. of Agriculture	Tallahassee, Fla.
Thompson, Vinton N.	N. J. Dept. of Agriculture	Trenton, N. J.
Thomson, T. E.	Minn. Dept. of Agriculture	St. Paul, Minn.
Todd, Thomas F.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Tower, Carl	N. C. Dept. of Agriculture	Raleigh, N. C.
Towne, Elmer E.	Vt. Dept. of Agriculture	Montpelier, Vt.
Tramel, W. T.	Miss. Poultry Improvement Assn.	State College, Miss.
Traylor, Harlon D.	Louisiana State University	Baton Rouge, La.
Trelogan, Harry C.	AMS, U. S. Dept. of Agriculture	Washington, D. C.
Trotter, Warren K.	AMS, U. S. Dept. of Agriculture	Peoria, Ill.
Tutt, J. H.	Ga. Dept. of Agriculture	Atlanta, Ga.
Vaughn, G. F.	Miss. Dept. of Agriculture and Commerce	Jackson, Miss.
Verdoorn, C. E.	Minn. Dept. of Agriculture	St. Paul, Minn.
Villamor, Luis E.	Puerto Rico Dept. of Agriculture	New Orleans, La.
Wactor, John C.	La. State Market Commission	Baton Rouge, La.
Wagner, W. A.	Ga. Dept. of Agriculture	Newborn, Ga.
Wayne, Dewey C.	N. C. Dept. of Agriculture	Raleigh, N. C.
Werber, Eleanor	Florida Egg Commission	Tampa, Fla.
Wermuth, E. L.	N. Y. Dept. of Agriculture and Markets	
	Mississippi A & I Board	Stanley, N. Y.
West, Loyd A.		Jackson, Miss.

Whaley, W. F., Rev.	First Methodist Church	Biloxi, Miss.
Whigham, C. B.	N. Mex. Dept. of Agriculture	University Park, N. Mex.
White, Robert H.	N. Mex. Dept. of Agriculture	Las Cruces, N. Mex.
Whitten, Jamie L.	U. S. House of Representatives	Washington, D. C.
Wickham, Don J.	N. Y. Dept. of Agriculture and Markets	Albany, N. Y.
Wilkinson, Don E.	Wis. Dept. of Agriculture	Madison, Wis.
Williams, G. M.	Fla. State Marketing Bureau	Jacksonville, Fla.
Williams, Robert	Wis. Dept. of Agriculture	Madison, Wis.
Williams, Willard F.	Oklahoma State University	Stillwater, Okla.
Wilson, R. B.	Purdue University	Lafayette, Ind.
Wilson, T. E.	Georgia State Farmers Market	Forest Park, Ga.
Windisch, Wesley W.	Ohio Dept. of Agriculture	Columbus, Ohio
Winfield, John A.	N. C. Dept. of Agriculture	Raleigh, N. C.
Woodard, Glen P.	Winn Dixie Stores, Inc.	Jacksonville, Fla.
Woodrow, William C.	University of Kentucky	Lexington, Ky.
Wooten, Jimmy T.	National Association of Live- stock Auction Markets	Kansas City, Mo.
Wright, Mary	Miss. Extension Service	Jackson, Miss.
Young, Thomas E.	Tenn. Dept. of Agriculture	Nashville, Tenn.
Youngblood, J. E.	S. C. Agricultural Marketing Commission	Columbia, S. C.
Zich, Gerald E.	N. J. Dept. of Agriculture	Trenton, N. J.



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